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VOL. XCII



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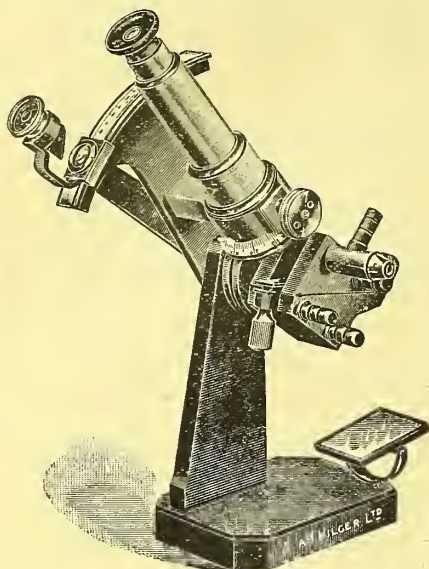
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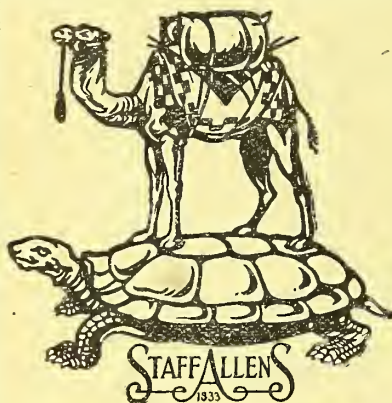
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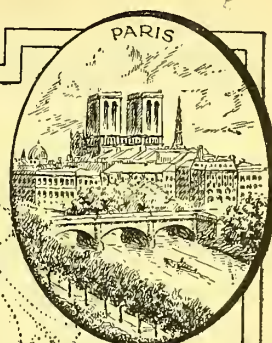
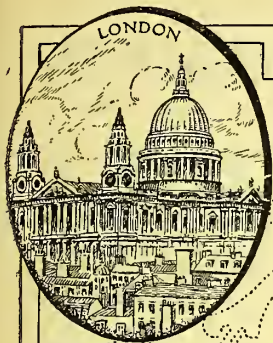
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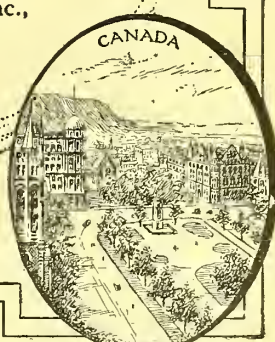
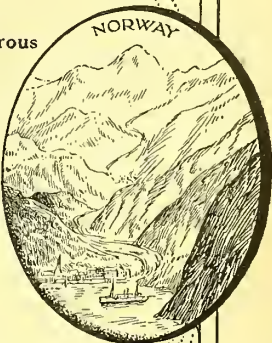
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FREE.—To any Chemist and Druggist in any part of the world, a sample copy of THE SPATULA, one of the handsomest and most practical drug journals published, full of American vim and push, and a 32-page illustrated catalogue of pharmaceutical books.

(Cheques on local banks in Great Britain accepted. Make Money Orders payable to IRVING P. FOX, Treasurer.) (1)

THE SPATULA, 14 Sudbury, Boston, Mass.

Important Announcement

THE VENO DRUG CO., Ltd, have pleasure in announcing the opening of their new model laboratories, equipped regardless of cost with the latest machinery, fitments and automatic appliances for the manufacture of Tablets, Ointments, Extracts and Toilet articles, under the personal direction and supervision of a pharmaceutical chemist with an extensive manufacturing experience. A permit to view these works will be readily granted to any of the Company's customers when visiting Manchester.

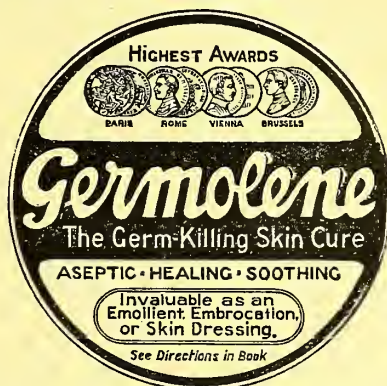
THE FOLLOWING NEW LINES ARE BEING INTRODUCED.

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Trade Mark
Reg. all
Countries.

The Aseptic Skin Dressing

An extensive and costly advertising campaign has just been initiated, embracing practically the entire press of Great Britain and Ireland; together with the efficient selling organisation of the VENO DRUG CO., Ltd., it is confidently anticipated that this high-grade article, neatly packed in decorated tins and lithographed cartons, will meet with an instantaneous and ever-increasing demand.



GERMOLETS in Tablet form, for Blood and Skin Troubles.

The companion remedy. Will also enjoy a quick and active sale, and should be ordered with Germolene.

PROVISION HAS BEEN MADE FOR PROMPT DELIVERY IN ANY QUANTITY.
P.A.T.A. MINIMUM RETAIL PRICES 1/3 & 3/-. WHOLESALE HOUSES CAN SUPPLY AT ONCE.

WINDOW SHOW TERMS.

Minimum orders, £10 assorted—GERMOLENE, VENO'S LIGHTNING COUGH CURE, Dr. CASSELL'S TABLETS, etc. 5% allowance for Window Display, and *pro rata* larger orders.

2½ % discount for cash in 30 days. ALL GOODS CARRIAGE PAID, IN FREE BOXES.

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THE VENO DRUG CO., LTD.

Manufacturing Chemists,
MANCHESTER, ENGLAND.

Telegrams: "SEAWEEED MANCHESTER."

Telephone: 422 TRAFFORD PARK.



That pet line of yours— If you could only get it known!

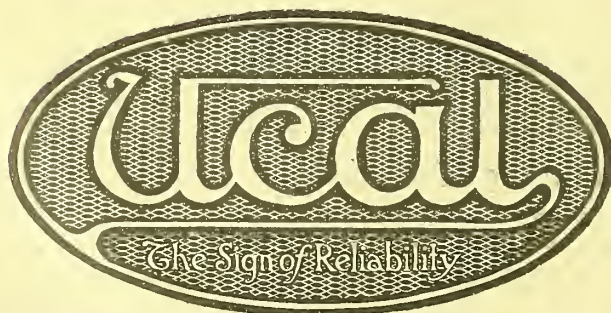
AH, yes! But there's the rub! One man in a hundred tries it—and perhaps one in a thousand makes it pay—the others buy experience.

The establishment of a proprietary on a national scale becomes more and more difficult every year. Competition grows both in volume and in efficiency.

You can't afford the risk!

Better leave tasks like that to UCAL. What may be nearly impossible for one man is quite easy for two thousand. To have that number of allies does make a difference!

J. ANGUS MACDONALD, in his book, "Successful Advertising," says:—"It takes a fortune to advertise a patent medicine. I know a concern that spent \$30,000 in advertising a very meritorious medicine, but even that good-sized fortune was found to be inadequate. The man who starts in with less than \$50,000 stands an excellent chance of sinking his money before the returns begin to cover the outlay. It takes a long uphill fight to establish a Patent Medicine, and after it is established it takes the same vigour and vim to hold it. For competition in this field is keen, and it is truly a fight in order 'To have and to hold.'"



UCAL, Cheltenham.

Maw's Page

S. MAW, SON & SONS, LTD. • 7 1/2, ALDERSGATE ST LONDON, E.C.1.

NUMBER 430
JAN. 10, 1920.



A Good Habit

ONCE upon a time (what a blessed legacy this handy phrase!)—once upon a time it was the fashion to laugh shyly at the man who wore a chest-protector or a body-belt. The humorous artist and writer found much material for mirth in his precautionary habit.

But the war taught us the value of many things at which aforetime we were wont to snigger. Rational dress for women was a subject that sustained many sly digs from Mr. Punch in the Victorian era, but to-day the photograph in the daily paper of a suburban housewife attired in her husband's service pantaloons arouses very little comment.

In the same way the body-belt—the "dado round the dining-room," as we called it in the Service—has become an established habit with thousands.

All sorts and conditions of men have realised its protective power and its health value in a climate which is not as much weather as a "series of samples."

It gives protection to parts of the body which are not so well protected as they might be. The lumbar region is particularly liable to sudden onslaughts of cold and damp, and a body belt, as many a man has found, saves its cost over and over again in doctor's bills avoided.

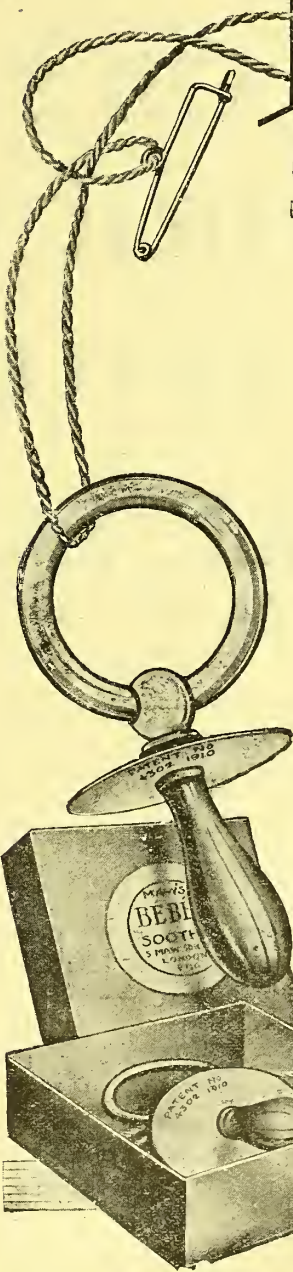
The point of this discourse is that there is a big trade to be done in body-belts, for not only is there an existing demand, and a large demand at that, but the possible developments are great.

If you preach the doctrine of prevention by protection to your customers, by window display and word of mouth, you will speedily realise the possibilities of this business in body-belts.

Meanwhile the House of Maw is ready to send you particulars of the excellent varieties it has to offer in this line.

Discuss

MAW'S BÉBÉ SOOTHER



FOR an ever seasonable article filling a long-felt want, this excellent Soother is just the thing.

The "nimble shilling" Soother, attractively put up in a box, makes it a handy gift line.

Apart from its elegant appearance, Maw's Bébé Soother has many vital "selling points."

1. Ribbed teat of pure transparent rubber.
2. Solid bone ring.
3. Strong safety-pin attachment.
4. Dainty length of silk cord.

The whole is mounted upon a card and enclosed in a strong art coloured box suitably labelled.

— PRICE —
7/6
PER DOZEN.

AN
IDEAL
GIFT LINE.

TELEPHONE: CITY 7 (PRIVATE BRANCH EXCHANGE).

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Maw's—"The House of the Moment."

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Cover your Requirements*

OLIVE OILS PHARMACEUTICAL
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LIQUORICE BLOCK
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70/80 %

CASTILE SOAPS
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ARE HIGHER THAN SPOT QUOTATIONS

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59 ST. MARY AXE - - LONDON, E.C. 3.

Telegraphic Address: "PALUSTRIS, LED, LONDON,"
Telephone: - - AVENUE 63 (2 lines), 6994.

AND AT LIVERPOOL, GLASGOW, BRISTOL, ETC.



TRADE MARKS.

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"EKLIPS LONDON."A B C Code, 5th Ed.;
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The Crown Agents for the Colonies, etc.Telephone No.:
1831 Hop.

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LONDON, 1881. VIENNA, 1883. CALCUTTA, 1884.

CHICAGO, 1893.

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"4 MEDALS" BRAND.

NOW that all the various liqueurs stand at such fantastic and extravagant prices (a large bottle of Benedictine is worth to-day about £5), it is an advantage to be able to readily manufacture such products of the very finest quality at an almost nominal cost; and we have already received numerous letters congratulating us on these Essences.

One volume of Concentrated Essence added to 100 volumes of Syrup and Spirit (full directions given) will produce the corresponding liqueur, almost indistinguishable from the genuine liqueurs.

Price is in each case 7/6 per ounce (special for large quantity), except in the case of Cognac which is double the strength (1 volume to 200 volumes), the price being 15/- oz.

SPECIAL OFFER.—To introduce these goods we will send at present on receipt of 30/-, four ounces assorted, free of all charges, to any country in the Postal Union.

**Cognac :: Curaçoa :: Kirsch :: Kümmel
Maraschino :: Vermouth**

Concentrated Essences for Liqueurs of the Benedictine and Chartreuse types at the above price, but these words being registered, it must be distinctly understood that the Essences do not profess to make the genuine liqueurs, neither must the liqueurs be sold under these names, nor the packages or "get-up" imitated in any way.

H. E. STEVENSON & CO.

(H. E. STEVENSON, F.C.S.)

*Licensed Compounders of
Essences, Spirits, Perfumes, &c.*

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Our experience of 40 years is at your service.

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"WHERE THE OILS COME FROM."

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THE PRODUCE BROKERS CO., Ltd.
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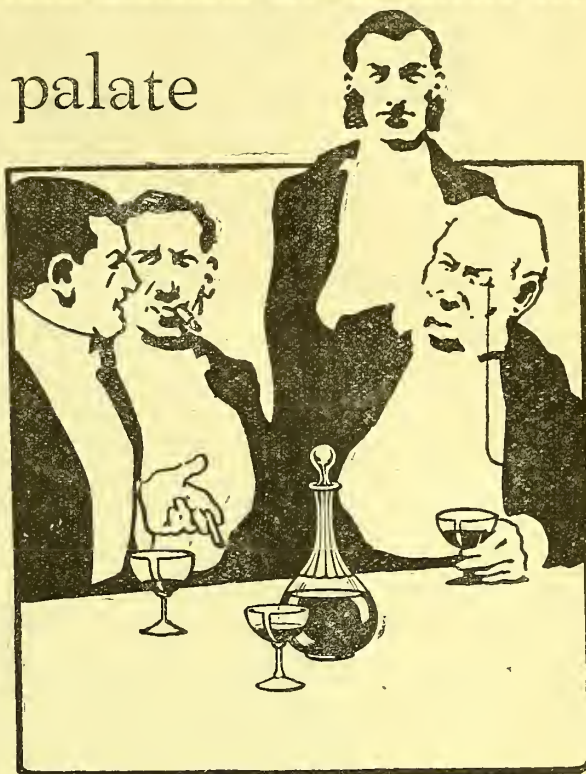
THE PHARMACEUTICAL LANOLINE CO.

Carnwath Road, Fulham, London, S.W.
WHO INVITE INQUIRIES.

AYRTON'S WEEKLY

PAGE
15

The most critical palate
will approve of
Ginger Wine made
from this Essence !



The flavour is full and fruity, and no better beverage is obtainable. You can make it in one operation or in 'nips' as required by simply diluting it with hot or cold water and sweetening to taste.

With aerated drinks at the present high prices, the sale of a thoroughly good preparation like our GINGER WINE ESSENCE can be very big. Why not make a good display ?

SACCHARIN MAY BE USED INSTEAD OF SUGAR FOR SWEETENING PURPOSES.

Per dozen ... 8/- ; per gross ... 93/-

Glacier Ballroom Polish

goes further and makes the
going better

Small ... per dozen, 11/6
Large 21/6

Concentrated Essence of Cinnamon

acts like the Spiced Punch
of old, it keeps the "Flu"
at bay or dispels it as
circumstances require.

Per dozen 7/9

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Telegrams: "STEVENUT MANCHESTER."

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Prompt delivery, packed or in bulk.

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"NIOBE." "Niobe" Specialities are now in great demand. All products are guaranteed and profitable to handle. **No. 118 Eau de Cologne** is unique and requires no advertisement.

Samples and Prices on Application.



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"Mineral Spring" Health Granules are supplied to Chemists and Druggists only, in tins retailing at 1/- and 2/- each. Ask for Sample and Trade Prices.

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& Bardsley House, London, N.1
ESTABLISHED 1767.

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OIL PEPPERMINT (Natural)

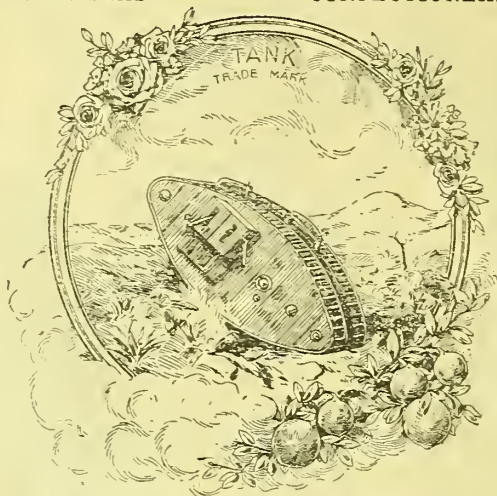
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attractive
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to buy
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and
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combined
produce
most artistic
effects.

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ONE OF OUR SELLING HELPS.

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"ZENOBIA Condensed Perfumes are so highly concentrated that less than a drop is sufficient to give a lasting fragrance. Momentarily invert the bottle, Madam, and then lightly touch the article to be perfumed with the stopper."

A brief explanation—yet good salesmanship—which will assist your sales and increase your profits.

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Retail prices are 3/6, 6/6, and 12/6 per bottle; whilst Trade prices are 27/6, 54/6, and 108/6 per dozen, less usual discount.

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Over a hundred lines made from the
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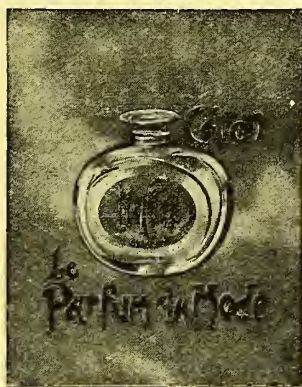
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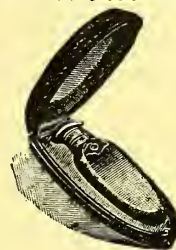
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LEATHER CASE.

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C—ISADORA	-	-	-	-	-
D—MIMOSA	-	-	-	-	-
E—MODE 1915-1916	-	-	-	-	-
F—LONDON-PARIS	-	-	-	-	-
G—NARCISSE CARON	-	-	-	-	-
H—NARCISSE NOIR	-	-	-	-	-
J—PETIT MIMOSA	-	-	-	-	-
K—N'AIMEZ QUE MOI	-	-	-	-	-
L—ROSE PRECIEUSE	-	-	-	-	-
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Profit,
33 1/3%

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LEMON - BERGAMOT
ORANGE - MANDARINE.
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In the manufacture of our Terpeneless Oils it was imperative that we secured the very finest Sicilian Oils to work upon. After several exhaustive tests we came to the conclusion that "SPINELLI" brand of Sicilian Oils gave us the best results. As we were able to place large orders for our own needs with the manufacturers, we have pleasure in stating that they have entrusted us with their British Agency, and we offer to users of Sicilian Oils the benefit of our experience. There is quality in every package. Guaranteed Genuine Oils of authentic origin, and to conform to any
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Mandarin

Nutmeg

Orange

Peppermint

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CINNAMIC

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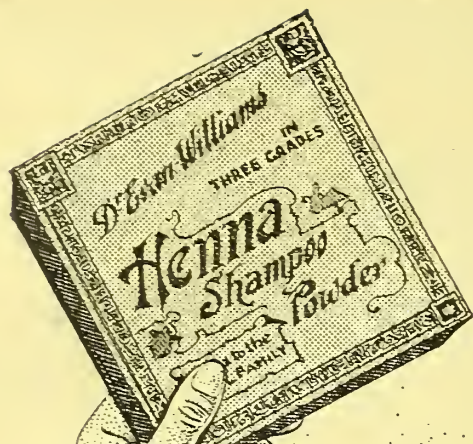
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Stock moves freely
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Full particulars are in-
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	Trade Price	M.R.
Ch'blain Balm	11/-	13
In three size ...	15/-	19
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Toilet Paraffin 4 oz. 9/- 8 oz. 13/-		"
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Special Prices for quantities on application to the Manufacturers:

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Large numbers of women doing outdoor or indoor work are buying Snowfire regularly. They have discovered its cleansing, softening and beautifying influence upon the skin—how it keeps the hands white and dainty.

Snowfire

Sells freely all the year round. Specially valuable in Winter for Chapped Hands, Cracked Lips, or Roughened and Irritated Skin.



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HUGE as the sale of Gibbs well-known Toilet Preparations has been in the past, in the near future it will be even greater—we intend it to increase by leaps and bounds.

To ensure the success of this project we are inaugurating a new and extensive advertising campaign which includes a special scheme for Dentists, bringing forward the powerful medical arguments for the use of Gibbs Dentifrice, and supplying the Dentists with samples for distribution amongst their patients. The ensuing sales will be made by you.

A glance at the list of influential media below will convey some idea of the scope of our scheme. This cannot fail to be felt throughout the length and breadth of the United Kingdom. The campaign starts in January, and our "big splash" appears on the front page of the *DAILY MAIL* on January 10. *You are bound to feel the effect.* You are sure to have inquiries for our lines—will you let your customers go away empty-handed—or will you please them and benefit your sales by keeping a stock on hand? See your stocks are well up—order a supply of Gibbs Dentifrice, Gibbs Cold Cream Soap, and Gibbs Cold Cream Shaving Soap, NOW!

GIBBS January Announcements will appear in these influential media :

DAILY MAIL	-	LONDON OPINION
DAILY MIRROR	-	PASSING SHOW
DAILY SKETCH	-	JOHN BULL
DAILY CHRONICLE	-	PUNCH
EVENING NEWS	-	COMING FASHIONS
SPHERE (2 colours)	-	GRAPHIC (2 colours)

Appealing to upwards of
TEN MILLIONS
of readers throughout the
United Kingdom.

Watch for
February Announcements.

D. & W. GIBBS, Ltd.
(Dept. S1)
Cold Cream Soap Works
LONDON, E.1.



Gibbs

Enolin

TOOTH PASTE

"STRONG" OR "MILD"

THE SUPER PASTE

"ENOLIN" IS ALSO SUPPLIED IN POWDER FORM, 6d. and 1s. TINS.

SOLE MANUFACTURERS & PROPRIETORS:

A. & E. CARRERAS, *Perfumers*,

207 King St., Hammersmith, London, W.6.

Selling Agents for

Provinces, Ireland and Export.

PATINSON & MACKIE, LTD.

59 New Oxford Street, London, W.C. 1.

ROURE BERTRAND FILS, GRASSE. *Established 1820.*

LAVENDER (French), SPIKE LAVENDER (French and Spanish)

NEROLI, GERANIUM (African and Bourbon), SANDALWOOD, PETITGRAIN (French and American),

VETIVER (Java and Reunion), ROSEMARY, BOIS DE ROSE FEMELLE, YLANG, &c.

ORRIS CONCRETE and LIQUID.

ESSENCES, SOLIDES and LIQUIDS from flowers.

RESINOIDS and POMADES.

We have Stocks in London of the most important Essential Oils and Perfumery Products.

JUSTIN DUPONT, Argenteuil (S. & O.), France
Makers of **SYNTHETIC PERFUMES**

and some of the finest original odours extant, for Sachets, &c.

SOLE AGENTS FOR THE UNITED KINGDOM:

STEPHENS BROTHERS & CO., 2, 5 & 6 Bury Court, St. Mary Axe, London, E.C. 3.
Wholesale Houses only supplied.

FACE CREAM. TOOTH POWDER. NAIL POLISH
" **POWDER. " PASTE. HAIR CREAM**
BRILLIANTINE, Solid and Liquid. PERFUMES
VIOLET POWDER. TALCUM. TOILET OATMEAL
SHAMPOO POWDER & LIQUID. MASSAGE CREAM

*Your own formula prepared, or we can supply ingredients if desired.
Send for samples and quotations.*

A. CONNELL & CO., 3 Jewry Street, LONDON, E.C. 3

PHONE—AVENUE 1945.



MALACEINE



MALACEINE PRODUCTS

Manufactured by
"PARFUMERIE MONPELAS"
 PARIS.

No.		Per Doz.	Retail Price P.A.T.A.
62	Crème Malaceine, Small size	15/-	1/9
63	" " Medium size	30/-	3/6
64	" " Large "	50/-	5/6
67	Poudre Malaceine, Small "	25/-	3/-
68	" " Large "	35/-	4/-
71	Malaceine Toilet Soap	21/-	2/6
75	" Perfume, each bottle in case	70/-	8/-
76	" " loose	65/-	7/6
78	" Shaving Soap ...	21/-	2/6

SPECIAL TERMS } Small quantities ... 7½ % 1 Month.
FOR HOME TRADE } £5 lots and upwards, 5 % Invoice and 7½ % 1 Month.

A £5 SAMPLE ORDER

	Will Cost You	Will Realise
1 doz. No. 62 Cream ...	15 0	1 1 0
1 doz. No. 63 Cream ...	15 0	1 1 0
1 doz. No. 64 Cream ...	12 6	0 16 6
1 doz. No. 67 Powder ...	12 6	0 18 0
1 doz. No. 68 Powder ...	17 6	1 4 0
1 doz. No. 71 Soap ...	10 6	0 15 0
1 doz. No. 76 Perfume ...	16 3	1 2 6
1 doz. No. 78 Shaving Soap ...	10 6	0 15 0
	£5 9 9	£7 13 0
5 %	5 6	
	£5 4 3	OR NEARLY
7½ %	7 10	60 % PROFIT.
	£4 16 5	

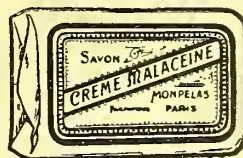
Showcards and Booklets Supplied.

An extensive Advertising Campaign in all the principal Society Journals is now proceeding.



Sole Wholesale Agents for Great Britain and Ireland—

WILLIAM TOOGOOD LTD
77, SOUTHWARK ST
LONDON, S.E.1.



The Tooth Paste with the Odol flavour.

Anglodol

Dental Paste

A Perfect Dentifrice.
Pleasant to the taste.
Profitable to the Retailer.

Retail Price, 7½d. and 1/3.

Window display terms on application.

ANGLODOL, LTD., BERKHAMSTED.

Telephone: BERKHAMSTED 138.

Cables and Telegrams: "ANGLODOL BERKHAMSTED."

MOUSLEY'S "BEAVERPUF"

Patent Nos. 4931 and 4932.

The Ladies' Natty Friend.

B. quality
Brown
Fur
3/11
each.



G. quality
Grey Fur
4/6
each.

Additional Powder Bags, 6d. each.

Just out. Demand great.
Delightfully soft in use.
Superior to artificial Puffs.
Write for Prices and Terms

F. A. MOUSLEY
(MAKER)

Priest Bridge, Mortlake,
London, S.W.14

G. B. KENT & SONS, LTD.

Are known the World over as
the Largest Manufacturers of

BEST BRITISH BRUSHES

Please write for full Particulars to—

75 Farringdon Road, E.C. 1.

RAOUL FRERES

Invite your inquiries for the following:

DRUGS, CHEMICALS (Fine
Photographic), HERBS, ROOTS
and LEAVES, ESSENTIAL
OILS, PERFUMERY, Aniline
Dyes.

RAOUL FRÈRES, Wholesale & Export Drug
& Chemical Manufacturers
6 Holborn Viaduct - LONDON, E.C. 1

Telephone No.: Central 8728.

Price Lists sent on application

FACT

THAT THIS PEAK SHOW

will bring custom that pays you handsomely, quickly and easily, because it synchronises with the heavy Press Publicity going on continuously in the best media.

"T.M." PASTE & POWDER "T.M."

..... are the one and only real

SMOKERS' DENTIFRICES

They are not ordinary lines "dressed up" to appeal to Smokers (an important point to bear in mind).

THIS HAPPY "T.M." SHOW

goes with an order for 6 doz. "T.M." Paste (1/3) at 9/9 per doz, 1/2 doz. Bonus; 6 doz. "T.M." Powder (7 1/2 d.) at 3/9 per doz.

OBSERVE THE P.A.T.A. MARGIN

THOS. CHRISTY & CO., 4-12 Old Swan Lane, LONDON, E.C.4.



DECOLTENE

The liquid hair remover

The intelligent depilatory. Simple, safe and effective. Can be used while performing the toilet.



Dinkie

The Deodorant

The greaseless cream that takes all odour out of perspiration. Packed in attractive opal jars.

DIADEM

Crème Rouge

Gives a natural colour to the cheeks. Far more convenient in use than dry rouge. Easily removable.

DIADEM

Face Powder

Adheres readily to the skin. Made in Blanche, Naturelle, Rachel, Rose and Sunburn tints. In large artistic boxes, in distinctive style.

DIADEM

Vanishing Cream

A cream of rare purity and charm, put up in novel white globes and packed in dainty boxes in attractive style.

DIADEM

WAX For the Complexion

Completely supersedes the customary greasy Toilet Creams. Pleasant in use and commands ready sales. In elegant large jars.

DIADEM

Eau de Cologne.

A Perfume of most exquisite fragrance. Cooling, lasting and refreshing. In handsome sprinkler bottles.

DIADEM

Talcum Powder

The ideal powder for Nursery and Toilet. Choicely perfumed, and may be used with impunity on the most sensitive skin.

TRADE TERMS.

P.A.T.A. Trade per doz.

Decoltene Depilatory	3/8	30/-
Dinkie Deodorant	2/6	20/-
Diadem Face Powder	2/6	20/-
.. Complexion Wax	2/6	20/-
.. Crème Rouge	2/6	20/-
.. Vanishing Cream	3/9	30/-
.. Talcum Powder	1/3	10/-
.. Eau de Cologne .. 1 oz.	1/9	14/-
.. .. 2 oz.	3/3	26/-
.. .. 4 oz.	6/-	48/-

NOTICE.

Artistic Showcards and Counter Matter free on request. Robartes' Preparations are obtainable from all leading wholesale houses.

Largely advertised in all the leading dailies, weeklies and monthlies.

Further particulars and descriptive booklet forwarded on request.

ROBARTES, Ltd., Dyer's Buildings, Holborn Bars, London, E.C.1.

“

”

REGISTERED
TRADE MARK

OSYL

TOOTH PASTE

M.R.P.

*Read this, from a
satisfied Pharmacist:*

“Never sent a cheque with more
pleasure, wish I could do a
hundred times the amount, but
this is only a small village.”

7 $\frac{1}{2}$ ^{D.} and **1/3**

PER TUBE.

The Line that gives you 100 % profit. Make your
order out as below and send on to us for the
SPECIAL WINDOW SHOW PARCEL.

Please send me, carriage paid, with Window Display matter:

7 $\frac{1}{2}$ d. OSYL TOOTH POWDER at **59/6** per gross.

7 $\frac{1}{2}$ d. OSYL TOOTH PASTE „ **67/6** „

1/3 OSYL TOOTH PASTE „ **135/-** „

with bonus of **$\frac{1}{2}$ quantity** ordered on three dozen lots,
for which I enclose cash and undertake to make counter and window
display in return for above special terms.

LYSOL Ltd., Stratford, LONDON, E. 15.

Special Offer to introduce CRÈME RAYMET

A perfect non-greasy vanishing cream, most attractively packed and delightfully perfumed—Crème Raymet makes an irresistible appeal to all those who value their complexion.

OUR OFFER: With each dozen Crème Raymet (28/- per dozen) we will send, free of charge, 250 dainty perfumed pocket calendars, printed with your name and address.

M.R.P.

3/6

a

Pot.

28/-

per dozen.



M.R.P.

3/6

a

Pot.

28/-

per dozen.

The illustration shows the style of packing—a dainty fawn-coloured earthenware pot, holding about 2-oz. —finished off with blue ribbon and attractive label in several shades of blue—each $\frac{1}{4}$ dozen in a “sales-compelling” show outer.

Crème Raymet is certain to become popular with your better-class customers—the cream is a really good one with a most fascinating perfume, and can be recommended with confidence—the profit is good, $\frac{1}{2}$ on each pot sold.

Why not try a dozen in your window—they will add to its attractiveness—a postcard will bring them, together with the pocket calendars.

Raymet & Co., Ltd., 507-509 Harrow Road, London, W. 10.

DEARBORN

LIMITED

37 Gray's Inn Road, LONDON, W.C.

Toilet Specialities.

		Price per doz. to Retailer.	Selling Price P.A.T.A.
PILENTA SOAP	-	10/-	1/-
A complexion soap.			
PROLACTUM	-	10/-	1/-
For the lips.			
PARSIDIUM JELLY	-	10/-	1/-
For wrinkles.			
ALLACITE of ORANGE	-	22/6	2/6
A dressing cream. BLOSSOM			
BORANIUM	-	22/6	2/6
A hair tonic.			
CLEMINITE	-	22/6	2/6
For a face lotion.			
COLLIANDUM	-	22/6	2/6
For a face tint.			
PERGOL	-	22/6	2/6
A deodorant.			
STALLAX	-	22/6	2/6
For a shampoo			
JETTALINE	-	31/6	3/6
For clearing the skin.			
PHEMINOL	-	36/-	4/-
A depilatory.			
MENNALINE	-	36/-	4/-
For the eyelashes.			
MERCOLIZED WAX	-	31/6	3/6
A face cream.			
STYMOL	-	36/-	4/-
For oily complexions and blackheads.			
BARSYDE	-	22/6	2/6
Dandruff eradicator.			
TAMMALITE	-	22/6	2/6
For grey or faded hair.			
LIQUID PERGOL	-	31/6	3/6
To check excessive perspiration locally.			
BICROLIUM	-	22/6	2/6
For whitening the hands.			
HARAPOSA	-	22/6	2/6
Nut oil shampoo.			

STOCKED BY ALL WHOLESALE HOUSES

COLONIAL DEPOTS AND AGENCIES.

AUSTRALIA:

ALL WHOLESALE and
DEARBORN, Ltd., Grace House, Clarence Street, Sydney.

SOUTH AFRICA:

LENNON & CO., Ltd. (Cape Town)
SIVE BROS. & KARMOVSY Ltd. (Johannesburg)

INDIA:

KEMP & CO., Ltd. (Bombay).
R. MACLURE (Madras).
SMITH, STANISTREET & CO. (Calcutta).
MEHTA BROS. (Calcutta).
JAMNADAS BROS. (Bombay).

NEW ZEALAND:

SHARLAND & CO., Ltd. (Auckland & Wellington).

SOUTH AMERICA:

DEARBORN, Ltd., Calla Salta 264, Buenos Aires.

DIRECT ACTION

SEND NOW FOR
FREE STOCK

of
"OKOS" TOOTH POWDER

To the first 100 Chemists

responding to this advertisement we will send post free One Dozen Tins of "OKOS" retailing at 7½d. per tin, together with Showcards.

A complete free Stock of "OKOS"

that will sell for 7/6.

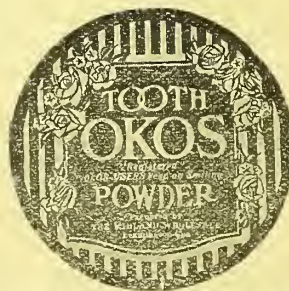
We are making this offer to give the Trade every advantage of the existing demand for "OKOS"—as we are inundated with mail order business that every Chemist should participate in.

"OKOS" SALES ARE BOOMING

and this is our method of advertising the fact to you—to enable you to meet the demand in your district.

WRITE NOW FOR YOUR FREE STOCK.

Applications must be made to our Advertising Agents, Messrs. J. HERITAGE PETERS Advertising Service, Lloyds Bank Chambers, Coventry, who will deal with them in strict rotation, and each Chemist supplied will be required to undertake to display the stock of "OKOS" and to sell it at its retail price of 7½d. per tin.



The Biggest Tin at
the smallest price.

**ARE YOU
SELLING
"OKOS"?
IT PAYS.**

Published by the Proprietors of "OKOS"
THE MIDLAND WHOLESALE,
2 REGENT PLACE, LEAMINGTON SPA

Why Euthymol Tooth Paste ?

Sales of Euthymol Tooth Paste have increased enormously during the last few years, and possibly the pharmacist, occupied in securing his individual share of this satisfactory business, does not stop to realise what this increase means.

One reason is that many men first came to know and appreciate Euthymol Tooth Paste whilst on active service. But if they had not realised its outstanding merit they would not continue to use it to-day, and it is just the same with other customers. It is the frequent repeat orders that pay.

The sale of Euthymol Tooth Paste is thus doubly satisfactory.

Its merit

- (1) enables it to be recommended with confidence, and
- (2) practically assures a continuance of repeat orders.

Are you getting your share of this business ? Please write to us; perhaps we can help you to increase your turnover.

PARKE, DAVIS & CO.

50-54, Beak Street, LONDON, W. 1.

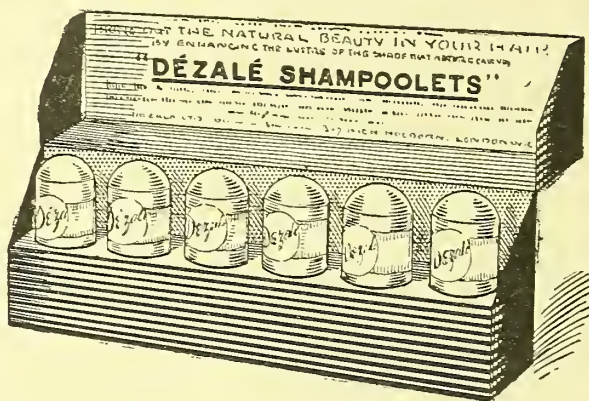
Laboratories : : Hounslow, Middlesex

SOMETHING NEW that SELLS ITSELF!

We are going to advertise this line extensively. Order a stock now so that when your customers ask you for

"DÉZALÉ SHAMPOOLETS"

you will be able to supply them.



10d. each

RETAILS

1/3 each

3/8 per box of 6

RETAILS

5/6 per box

Special bonus for window displays. Other DÉZALÉ Specialities in the course of preparation. List on application. Orders to the value of £2 sent post free.

DÉZALÉ, LTD. - Showrooms and Offices, 317 High Holborn, W.C. 1.

Phone: HOLBORN 1350.

CL 1010



No. 9.

This Showcard Yours for the asking

We shall be pleased to send you the above if you will write to us on your business notepaper stating the number you require. Also please quote showcard number.

ANZORA CREAM for slightly greasy scalps and ANZORA VIOLA for dry scalps.

TRADE TERMS ON REQUEST

ANZORA

MASTERS MEN'S HAIR

Anzora Perfumery Co., Willesden Lane, London, N.W. 6.

"Jackel's Cream"

(without Grease)
for THE HAIR

Sold everywhere

Established 1883.



CRYSTALLISED
1/6 CREAM 2/6

Trade Mark attached to each bottle.

"Jackel's Cream" fixes the hair in any desired position; is unexcelled as a dressing and does not soil the headware. It removes Scurf and Dandruff, keeps the scalp healthy, and promotes the natural growth of the hair while maintaining its softness and brilliancy.

Prices for Wholesale and Export Houses on application.

Jackel et Cie (of Paris)
Ltd.

Sauchiehall Street
GLASGOW

The AMAMI Way to MANICURE



COUNTER DISPLAY BOX.

*Ask your Wholesaler
for Showcards.*

FIRST file with long **EMERY BOARD** (12/- a doz.), then soak in **AMAMI LIQUID SOAP** (12/- a doz.), clean under the nail with an **ORANGE STICK** (12/- a doz.), dipped in **CLEANSING FLUID** (12/- a doz.), push back cuticle with an orange stick dipped in **CUTICLE CREAM** (8/- a doz.), remove loose cuticle with **CUTICLE FLUID** (12/- a doz.), tint with **RUBY COSMETIQUE** (12/- a doz.), polish with **POLISHING CREAM** (12/- a doz.), or **NAIL CRAYON** (6/- a doz.), or **NAIL POWDER** (12/- a doz.), and cover with **VARNISH** (12/- a dozen); whiten hands with **SUC DE GARDENIA** (20/- a doz.).
10/- CASH BONUS for a £5 WINDOW DISPLAY.

COUNTER DISPLAY BOX FREE.

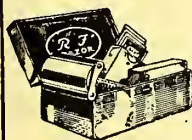
Prichard & Constance

(Wholesale) Limited
COURT PERFUMERS. EST. 1831.
469 HOLLOWAY ROAD, LONDON, N.
Cables—"Amamireg. Holway, London."
Phone-3170 North.

They
will
all ask
for the
**R.F.
RAZOR.**

ALL
BRITISH
MADE.

21/-
COMPLETE.



WHAT IT IS—

A Safety Razor that embodies an invention worked on an entirely new principle. It does not scrape over the face, it **ROLLS**. Thus its action is delightfully smooth and soothing to the skin, giving a perfectly clean and pleasant shave.

Rollo-Foam
SAFETY RAZOR

WHY YOU MUST STOCK IT—

It is being extensively advertised and is selling well.

It is the best safety razor ever invented.

It is most excellent value.

Price List sent on application.

LEWIS REGNARD & CO.,
90 Lower Thames Street, E.C. 3.

Real Good Lines

Pumisope "The Hand Cleaner."
Dry Cloth-cleaning Balls
(All Colours)

Precipitated Chalk
(Powder)

Prepared Chalk
(Powder and Cones)

**Fancy Boot-top
Cleaning Balls.**
(All Colours)

**Magnesia, Rouge,
&c.**



HANCOCK'S, LTD.

"The Factory," OLD BATTERSEA, S.W.11.
WHOLESALE: Write for QUOTATIONS.

It pays to push Palmolive

The demand for these saleable products increases every minute.

THE word PALMOLIVE means more than a name for the purest soap made, and possessing a world-wide reputation—it stands also for *purity and quality* of all PALMOLIVE Specialities.

Most toilet articles are sold first through the eye. Unwittingly, instinctively everyone feels the "I want to buy that" impulse, generated by the attractive and compelling package. In such all Palmolive Goods are packed.

Write for our new list of Prices, showing special terms, also for Showcards, etc., for window and counter display.

Palmolive Soap (9d. per Tablet) is made of the finest Olive Oil and Palm Oil obtainable, scientifically blended. It contains no free Alkali or artificial colouring, lathers freely in hard water and leaves the skin white with a silky softness and possessed of a delightful fragrance that has made Palmolive so much desired by the most discriminating. Cost per dozen, 6/-: On the P.A.T.A. list.

PALMOLIVE



PALMOLIVE SHAMPOO (3/-), is put up in attractive bottles and secures repeat orders when once used. It is highly concentrated.

Cost, per dozen, 24/-.



PALMOLIVE VANISHING CREAM (Jars 2/6, Tubes 1/-). Fragrant and refreshing, the jar (satin-finished, glass stoppered) half sells it. It will be one of our most popular lines.

Cost per doz., Jars, 20/-, Tubes, 8/-.



PALMOLIVE COLD CREAM (same as original Palmolive Cream (Jars 2/-, Tubes, 1/-). The aristocrat of cold creams. It is considered by many ladies to have no equal.

Cost per doz., Jars, 16/-, Tubes, 8/-.



PALMOLIVE SHAVING CREAM (Tubes, 1/6). Contains sufficient for 152 shaves, and is made from a formula after 13 years had been tried and discarded. Contains Palm & Olive Oils. Cost per doz., 12/-.



PALMOLIVE SHAVING STICK (1/6), a combination of high-grade Palm and Olive Oils.

The holder is an oval pure aluminum container with novel screw action expelling the stick as required.

A sure seller and the novelty of the season. Cost per dozen 12/-.



LAVENDER and ROSE BATH SOAPS (White Floating Soap) our last new lines from Canada. The buoyant property renders them invaluable for the bath. The popular price of 6½d. ensures them being good selling lines.

Cost per doz., 4/4.



PALMOLIVE TALCUM (4 oz. containers, 1/3) is made from the finest air-floated Talcum, selected before purchase for purity, quality, colour, and softness, and tested again on delivery by competent chemists. Cost per doz., 10/-.



PALMOLIVE FACE POWDERS (2/6 per box)

have a healing & soothing effect on the skin, and

are entirely unaffected by perspiration or moisture. The powder as fine as petal dust. (White, Rose, and Brunette). Cost per dozen 20/-.



ROUGE VANITY BOX. Black powder (1/9). Fitted with Powder Puff and Mirror.

Cost per dozen 14/-.



LIP ROUGE (1/-) It is delicately perfumed and leaves the lips most supple and velvety.

Cost per dozen 8/-.

THE PALMOLIVE CO., 13 & 14 GT. SUTTON STREET, GOSWELL ROAD, E.C. 1.



Revised Prices

came into force for some
Icilma Preparations
on Jan. 1st, 1920.

*If you have not yet received our
new complete revised price list
send for one NOW.*

Icilma

Toilet Preparations

These are our terms for DISPLAY PARCELS—showing
Discounts and Allowances. They are unchanged.

No discounts or allowances of any kind are granted except
for at least 14 days' continuous display of our advertising
matter—sets of which are in proportion to the orders.

Order.	For the 14 days' display.
30/- Parcel	10% discount.
£3 Parcel	10% discount and 4/- allowance.
£6 Parcel	10% discount and 10/- allowance.
£12 Parcel	10% discount and 20/- allowance.

Additional for cash with order—2½% discount. Carriage Paid Home.
Packing Free.

International Icilma Trading Company, Ltd., 37, 39, 41, 43, King's Road, St. Pancras,
London, N.W.1.

ATHLETES HAVE TO USE THEM

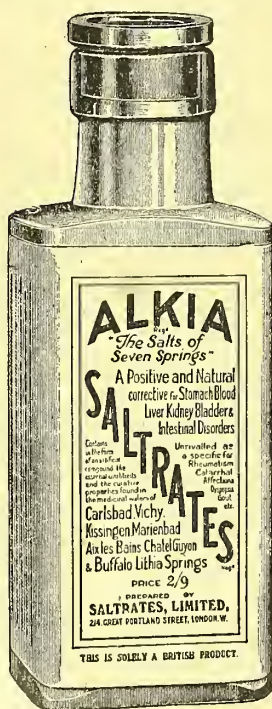


ALFRED FELTON.

Holder of the World's Sculling Championship.

ALKIA SALTRATES.

A widely advertised product, which is the most efficient saline on the market, and best value for the money. Being highly concentrated, only very small doses are necessary, and there is no trace of unpleasant, salty taste. Protected on P.A.T.A. at the full face value of 2/9 a large bottle.



"Reudel Bath Saltrates is absolutely unequalled for rendering the skin active and healthy, and eliminating all impurities from the body. When in training for the World's Sculling Championship, Reudel Bath Saltrates kept me free from all muscular aches and pains to which any athlete in hard training is subject. It is my pleasure to praise and recommend your admirable Reudel Bath Saltrates to the public."

Alfred Felton

JIMMY WILDE, World's Champion Boxer :—"I am glad to testify to the part your Saltrates fulfill during my training periods. I am never without both and never will be."

Jimmy Wilde

BOMBARDIER BILLY WELLS, the popular Boxer :—"While a physical instructor in the army, I found both Alkia and Reudel to be almost indispensable for correcting and preventing the ills and pains to which Tommies are subject. Personally, I take Alkia regularly, and Reudel is always added to my bath."

Billy Wells

JIM SULLIVAN, ex Middle-Weight Champion and former Army Physical Trainer :—"Alkia soon 'knocks out' liver, kidney, uric acid or similar disorder. Reudel baths stop any aches or pains, foot troubles, etc., in no time. Your ad. writer is too conservative."

Jim Sullivan

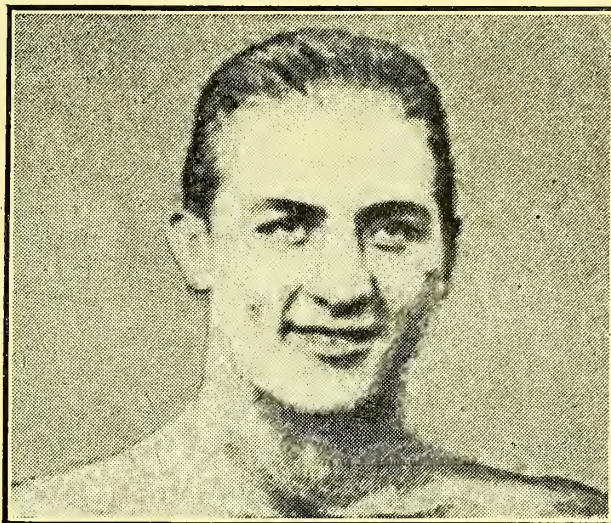
YOUNG HEALEY, Featherweight :—"I strongly advise all professional boxers to use both Alkia Saltrates and Reudel Bath Saltrates, as I do myself, regularly."

Young Healey

EVERYONE SHOULD USE THEM

REUDEL BATH SALTRATES.

The most fragrant, refreshing, beneficial and all-round satisfactory preparation for the bath or for general toilet purposes. Especially recommended in cases of foot trouble or rheumatic pains, stiffness, etc. Now being extensively advertised. Protected on P.A.T.A. at the full face value of 1/9 and 2/9.



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V. G. George

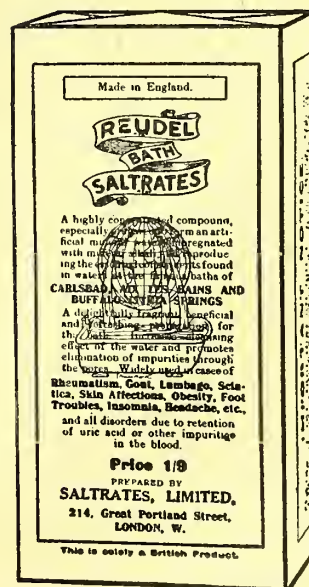
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A. Donaldson

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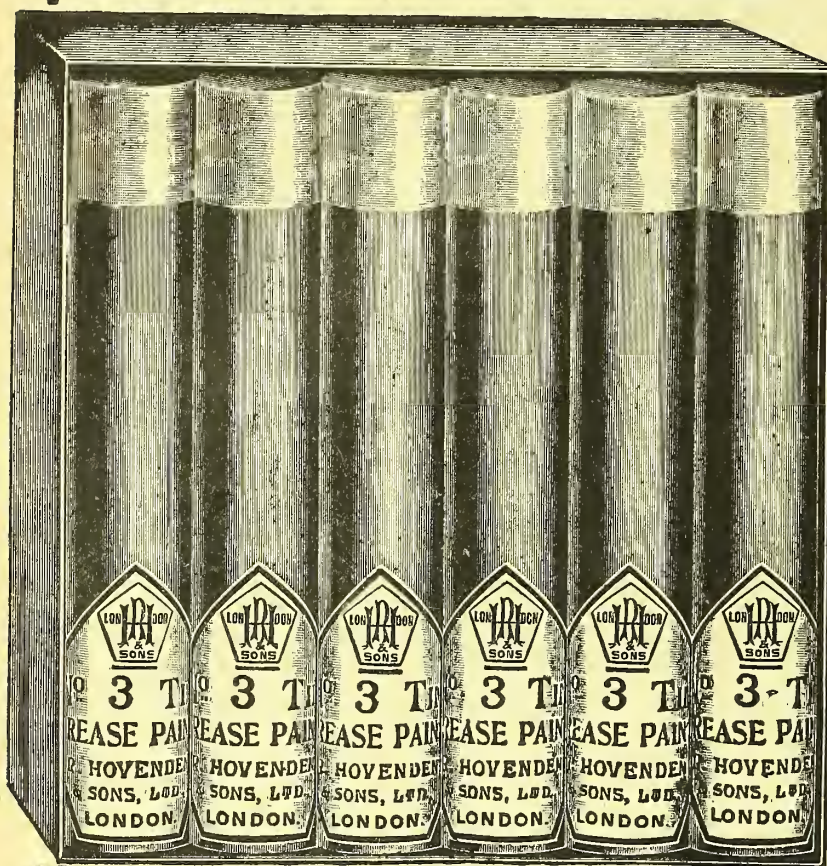
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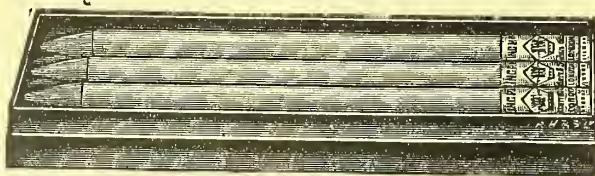
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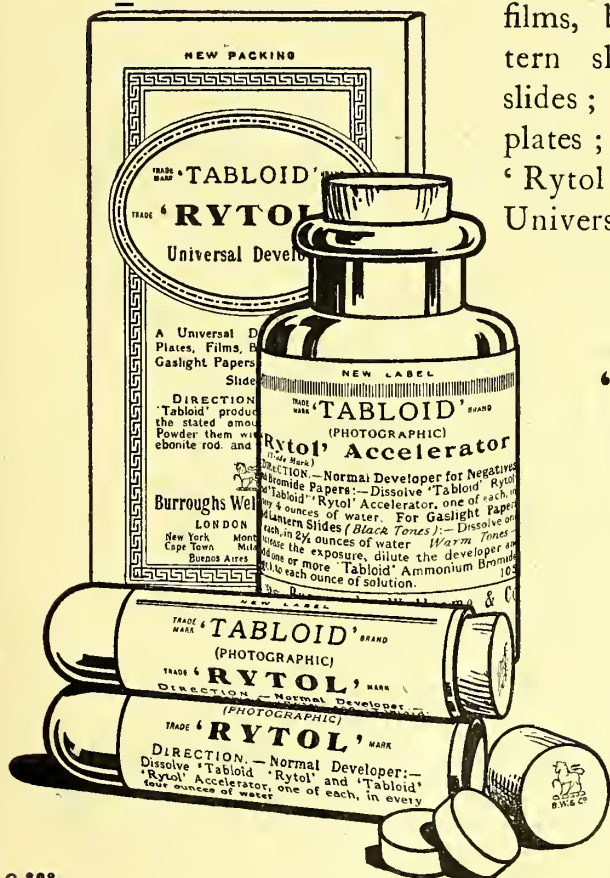
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The Chemist and Druggist Diary, 1920.

WE much regret the unusual delay in producing *The Chemist and Druggist Diary*, 1920, owing to the prevailing adverse economic conditions. The distribution has commenced of the copies for London and Provincial subscribers, and it is hoped to complete delivery before the next issue of **THE CHEMIST AND DRUGGIST** is published. We much regret the delay and inconvenience which has been caused.

Index to Volume XCI.

THE index for the volume covering the year 1919 is in preparation. It will not be published with **THE CHEMIST AND DRUGGIST**, but when ready will be sent to any subscriber who intimates his desire to receive a copy. Postcard applications should be sent to the Publisher, 42 Cannon Street, London, E.C. 4. As on previous occasions, a certain number of copies of index will be reserved for applications from Colonial and foreign countries, so that all desiring to bind their volumes can complete them with the index.

ST. LUCIAN KOLA.—The exports from St. Lucia during 1918 amounted to 14,261 lb., against 5,411 lb. in 1917.

Experiences of the Great War.

Contributions to this section are invited.

XXII.—1914-1919.

MANY descriptions of war service which I have read seem to me to skip unduly, indeed irreverently, the first days when "all the youth of England was on fire." Certainly, to look back now it is strange to try to recapture the old enthusiasm which, in its practical realisation, saved the situation. But it is well to recall the time when the youth of the country saw the way of duty and were willing to follow it. The first flush of enthusiasm waned—how could it do otherwise?—when the War Office kept calling for men, with whom they could not cope, to save the Empire. My first billet after joining the R.A.M.C. was a horse-stall where eight of us lay. The last comer had to sandwich himself in bed sideways, and when "father said 'Turn' we all turned." My seven companions were a motley crowd. Four of them were secondary schoolmasters, one was a vanman, one a watchmaker, and the seventh, "the noblest Roman of them all," was an Oxford B.A., a theological student. Of these seven the last-named was killed in action and three were honourably discharged long before Armistice day. When we arrived in France early in 1915 we went straight to the line for training with a regular division. After a fortnight's instruction we were sent to Ploegsteert Wood and did various jobs there. I suppose to seasoned troops the life was humdrum. To us it was not without excitement. Trench digging, shelter building, first-aid work, and desultory shelling, all combined to give us something to think about. Clandestine explorations of the wood, where there had been and where was still to be heavy fighting, served as a relaxation. Some of us afterwards went to a small village called Romarin, about 2 kilos. behind Ploegsteert, and opened a sick station. In the village an explosion at an ammunition-dump occurred, whereby fifteen to twenty were killed or wounded, and the ordinary routine of dealing with the wounded and sick gave us quite enough to go on with. While we were here the Canadians were subjected to the notorious gas-attack at Ypres. Shall I ever forget those first respirators, composed of a piece of waste soaked in solution (sod. hyposulph., glycerin, and water) enclosed in muslin and secured by tapes! Apart from the gas-drill, which an extremely zealous sergeant-major put us through, it fell to my lot to have to prepare the solution, soak the pads, wring them, pack them, and, at midnight, take them up the line. No lights could be shown on the ambulance, but the snipers used to find us nevertheless, and one eventful winter evening, I remember, our driver in endeavouring to turn landed his car into a ditch three feet deep. We stepped out of the derelict vehicle into thick slime up to our knees! When we went up the next time we found the previous batch of respirators still serene and undisturbed where we had dumped them. "Love's labour lost," but the troops were prepared to risk the gas rather than to wear those miserable pads! There were one or two pleasant episodes in our duty here, but we were not to remain for long; and after various rumours of moving, a Kitchener Division came along one day to which we acted as instructors for a spell. We set out for a series of night marches, in one or two of which I, with many another, experienced the sensation of sleeping while marching. Our fellows were put to a very considerable strain in these marches, but came through well; at last we arrived at Couin behind Hébuterne, on the Somme, where we were warmly received by the French, we being the first British troops in this sector. Some of us remained at Couin, afterwards removing headquarters to Vauchelles, while others went up to Hébuterne to open an aid post there, and a third party opened an advanced dressing-station at Sully au Bois, about two kilos. behind Hébuterne. This brings us to the battle of Loos in September 1915, in expectation of which we made elaborate preparations. To us then the stores we had to have ready and the operating

accommodation seemed altogether out of reason. In the light of later fighting they were quite inadequate. We were round about this region for a considerable time, and it was here that were attempted the first experiments in "Divisional Rest Stations." So successful were these that they became the basis of a much wider system later of "Corps Rest Camps." The idea was fundamentally, I believe, to prevent the enormous wastage of front-line man-power due to cases of shell-shock and ordinary sicknesses, as well as to keep these patients in as much comfort as possible. But our D.R.S. came to an end all too soon, for, so far as I was concerned, and though I had "the heavy end of the stick" as sergeant, I enjoyed it. Ear-syringing, urine-testing, minor operations, besides quite a fair amount of dispensing—even if one had to guess the weights—made me pleased that my qualification was not altogether useless. However, we had orders to move, and went, early 1916, to Sonastre, where we established headquarters, taking over an advanced dressing-station at Foncevillers, and we remained until the Somme battle in July 1916 found us back at Hébuterne again. There many of our "boys" were badly gassed, and they were sent down to the base. For myself, I received orders to proceed to a casualty clearing-station as sergeant in charge of dispensary and medical stores—a duty previously performed by a regular staff-sergeant. At a casualty clearing-station the duties of a sergeant in charge of medical stores are more adequately defined than those of a sergeant-dispenser of an ambulance, and I found matters go along very smoothly. When things were quiet the duties were largely routine dispensing and stock-keeping. When a "strafe" was on it was a time of anxiety; and during continuous fighting (throughout the summer of 1917) it was worse. The amount of cotton-wool, lint, bandages, rubber gloves, the quantities of eusol, brilliant green, flavine, saline, and other solutions consumed were enormous, and necessitated day and night work. In the intervals of the heavier fighting one got things together and had to carry on more elaborate dispensing. I suppose I should feel a glow of pride in saying that I dispensed while with this unit for Earl—then Field-Marshal—Haig, his chief-of-staff, and many a high military dignitary. I still have the prescriptions scrawled on odd buff slips or torn pieces of paper. New treatments and methods were constantly brought forward, and I obtained a sound general knowledge of the newer drugs, and, so far as I could out there, kept myself *au fait* with the latest developments of medicine and surgery. In consequence the surgeons of the station frequently came along to my stores to discuss matters with me, and many were the new ideas tried—brilliant green ointment, modifications of "Bipp," "bomb-shock" mixture for the *personnel* (we were being bombed persistently at the time), and numerous other suggestions put forward by the medical officers; though I confess that the bomb-shock mixture was a conception of my own and found favour with the troops, by whom it was irreverently nicknamed "wind-up mixture." Perhaps the most gratifying moment of all to me was when my orders came through to proceed to the line with the R.E.s (Special Brigade), in which corps I had been approved for a commission; the officers of the unit came and thanked me for what I had done for them, and wished me well in my new occupation of gassing the Germans. I had been trying for a commission since late 1915, and having been rejected on physical grounds in other combatant corps I was pleased to find that, by the special backing of a corps commander, I was at last approved. The status of the pharmacist in the Army is admittedly deplorable, and the matter has been argued *ad nauseam*. A point that is not perhaps sufficiently realised is that in a field ambulance a qualified chemist is a luxury. In a casualty clearing-station he is an advantage, while with a base hospital he is a necessity. With the base hospitals should be coupled base and advanced depôts of medical stores, in which, assuming the pharmacist has a level business head, he should be put in charge and not, as at present, given three stripes and made responsible to an officer who knows all about army forms but nothing about medicine or pharmacy.

"PHARMER." (41/12.)

English and Welsh News.

The Editor would be obliged if subscribers would send him marked copies of newspapers containing items of interest for insertion in this or other news sections of the "C. & D."

The Sheringham Daylight.

The Sheringham daylight, which is a recent invention consisting of a tinted reflector for the correction of artificial illumination, so that the result closely approximates daylight (*C. & D.*, 1919, p. 1361), was exhibited at the tenth annual exhibition of electrical and other apparatus held by the Physical and Optical Societies at the Imperial College of Science, South Kensington, London, on January 7 and 8. The exhibit consisted of three compartments, the lighting arrangements being modified in two sections by means of the reflectors, so that in one what was termed the North Skylight was produced, and in the other diffused daylight, while the middle was lighted indirectly by an ordinary tungsten lamp, so that the effects of the invention on coloured specimens of cloth, etc., could be contrasted. Very striking effects were demonstrated by Major Klein, M.B.E., late director of the experimental work at the Camouflage School, who is partly responsible for the development of the invention, the actual inventor being Mr. George Sheringham. Abundant evidence was provided that the invention is truly what it claims to be—approximately daylight—and it should prove of great value to many industries. The reflector itself consists of a parasol-shaped screen of colours, arranged according to an empirical formula, and these neutralise the excess of red rays in artificial light, so giving the blue and violet rays at the opposite end of the spectrum a chance to assert themselves, as they do in daylight. While it presents the simplicity of all great inventions, as Major Klein pointed out, the working out of the colour arrangement involved an immense amount of research.

Society of Chemical Industry.

At the meeting of the London Section at Burlington House on January 5, papers were read by Mr. E. V. Evans and Dr. G. S. Walpole regarding the present position of the German chemical industry. It was stated at the meeting that it was not desired that independent reports should be made of the proceedings, but the nature of the "revelations" hardly merited such exceptional treatment. To readers of *THE CHEMIST AND DRUGGIST* the papers presented little that was new.

Contracts

The following tenders have been accepted by the bodies named:

Cambridge Guardians.—Mr John Evans, chemist and druggist, drugs.

North Bierley Guardians.—Harrison, Parkinson & Co., chemists, Bradford, drugs.

Poisonings.

The following fatal cases of poisoning have been recorded since our last report:

At Great Yarmouth, on January 1, a widow named Welldon committed suicide with a poison described as chlorodyne.

At Greenwich, on December 30, 1919, an inquest was held on the body of Mr. Percy Dolph Smith, chemist and druggist, who was found in Lee Road on December 27 in a dying condition. A brother stated in evidence that the deceased had suffered from insomnia and was worried. Medical evidence showed that poison, "probably cyanide of potassium," had been taken, and that the skull was fractured. A verdict of "Suicide while of unsound mind" was recorded.

In the course of an inquest held by the Westminster Coroner, on January 6, on the body of Lieutenant R. A. C. Heron, R.F.A., who had been found dead in a London hotel, the evidence showed that three chlorodyne bottles were found empty in his bedroom. Dr. G. E. Haslip, who was called as a witness, stated that the cause of death was chlorodyne-poisoning, that the contents of one 2-oz. bottle would be a fatal dose, and that chloro-

dyne was easily procurable from any chemist if the purchaser signed the poison-book. A verdict of "Suicide during temporary insanity" was returned.

Birmingham.

A recent sale of motor-lorries at Bingley Hall drew a large concourse, and prices ruled high.

Birmingham and Walsall are seeking improved railway communication. A committee has the matter in hand.

A portrait of Professor Percy Frankland is on view at the galleries of the Royal Birmingham Society of Artists.

"Chelsea pensioner," says "Medico," in the Birmingham "Weekly Post," "is a valuable remedy for all forms of chronic rheumatism."

Influenza has appeared in a marked form in some of the Black Country districts. One of the manifestations of this outbreak is gastric disturbance.

It is remembered here with interest that Sir Alfred Bird, M.P., whose knighthood was announced in last week's *C. & D.* (p. 70), is the son of a former Birmingham pharmacist, who frequently (generally with success) opposed the city analyst of the day.

Sir Oliver Lodge, who is about to visit America, was, on December 31, presented by the citizens of Birmingham with an illuminated address and a motor-car, together with a jewel for Lady Lodge. The Lord Mayor (Mr. W. A. Cadbury) made appropriate reference, at the ceremony, to the growth of the University under Sir Oliver's direction.

Liverpool.

The Mersey Docks and Harbour Board proposes to spend 2,000,000*l.* on harbour improvements.

Veneral diseases are to be brought under the Notification of Diseases Act, 1839, in the Port of Liverpool.

The new laboratories of the city analyst and bacteriologist are to be completed at a cost of a further 6,750*l.*

The first full week of the New Year has found Liverpool wholesalers hard at work dispatching both town and country orders.

The fact that a recent murder was committed in Covent Garden and not Tithebarn Street (close by) has caused great relief to one pharmacist!

Mr. J. H. Robinson, Exchange Station Pharmacy, has now recovered from his recent indisposition, and his friends are glad to see him back at business again.

Mr. Reuben Hird, who took over the management of the Kirkdale branch of Lomax, Ltd., when he was demobilised from the Canadian Expeditionary Force, has been appointed town representative for Throatlets, Ltd.

Mr. E. Norman Torry, the representative of Ayrtton, Saunders & Co., Ltd., in South Africa, has sent a New Year greeting to his old colleagues in Hanover Street. In Johannesburg, in December, he was eating strawberries and cream!

A good story regarding the head of a firm who are large buyers of chemicals has become current. He was appointed by the Government during the war as buyer of certain material. When a large quantity was in urgent demand for France he very quickly secured all that was needed. On reporting to his committee, they asked him to obtain and lay before them tenders and samples. "All the stuff has been bought and sent to France," he replied, and the committee sat aghast!

The annual conference of the representatives of Ayrtton, Saunders & Co., Ltd., was held on January 2 at the Washington Hotel. Mr. Harold Nixon, vice-chairman, presided, in the absence of Mr. W. H. Saunders, this being the first of these gatherings that Mr. Saunders has missed since their inception over twenty years ago. After the business had been disposed of it was decided to cable greetings from the representatives to Mr. Saunders in New Zealand, and to Mr. E. N. Torry, who is visiting South Africa on behalf of the company. On the previous Monday the heads of the departments met at an informal dinner at the same hotel.

Manchester.

There was a meeting of the panel chemists on January 2 to instruct the delegates to the Local Associations Executive Conference as to the terms for Insurance dispensing which were agreeable to local chemists.

The delegates were Messrs. F. W. Bates, J. Cleworth, A. Hershberg, and J. H. Nidd, and they journeyed together to London on January 5. The delegates took an active part in the proceedings at the Conference. Mr. Hershberg moved the resolution appointing the eight delegates who waited upon Dr. Addison, the Minister of Health; Mr. Bates was one of the Association delegates, and Mr. Nidd was a delegate from the Local Associations Executive, of which he is a member.

Dr. Niven, Medical Officer of Health, has sent out a typewritten circular regarding the rat campaign, asking chemists to send their names in if they sell the rat poisons favoured by the Corporation. As excess postage, 2*d.*, had to be paid on the communication some chemists hesitated before taking it in.

Dr. Edward Ardern, F.I.C., formerly chief chemist, has been appointed consulting chemist to the Rivers Committee of the Manchester Corporation, and has joined Mr. S. E. Melling, F.I.C., consulting chemist to the Salford Corporation and public analyst for the County of Chester, in practice as analytical and consulting chemists, The Cliff, Higher Broughton, Manchester.

Sheffield.

The price allowed for malt extract with cod-liver oil in the Tariff is under cost price for small buyers.

The local Students' Association has secured the promise of a lecture from Major Saville Peck, M.A., Ph.C.

Wholesale houses in neighbouring towns, and even so far away as Liverpool, are arranging a weekly delivery of goods by motor-lorry and taking back returns.

Messrs. J. T. Appleton and H. Antcliffe, as members of the local advisory committee of the Ministry of Labour, have signed a joint circular to employers asking for their aid in finding vacancies for ex-officers or men of similar education.

Miscellaneous.

FIRE.—Slight damage was caused to the premises of Sproat & Co., chemists, Wigton, on December 27, by an outbreak of fire which occurred in a room over the shop.

VARNISH FOR CATCHING RATS.—The Public Health Department of the City of London is prepared to furnish information regarding a varnish for catching rats. Experiments in this direction, carried out by the City medical officer, have proved successful. The preparation, described as "strong lithographic varnish," is warmed until it becomes sufficiently liquid, and then thinly spread on stout cardboard or other suitable material. The varnish is not poisonous.

THE RUSH OF PHARMACY STUDENTS.—At a meeting of a district committee of the Appointments Department of the Ministry of Labour, held at Exeter on January 5, the chairman remarked, referring to the employment of ex-Service men, that pharmacy still seemed very popular. Where, he asked, were all these budding chemists going? The secretary replied that pharmacy training was being overdone. An instruction had been received from the Ministry that in future grants would not be made to candidates for pharmacy who were not studying pharmacy prior to joining the Forces, except in special cases.

ANTHRAX DISINFECTION.—The Ministry of Health has issued the following disinfection method for minimising the risks of anthrax from Japanese shaving-brushes: Thoroughly wash the hair of the shaving-brush with soap and warm water, to which a little washing soda has been added. Rinse in warm water, and then immerse for one hour in a disinfecting solution consisting of two tablespoonfuls of formalin in half a pint of water. The disinfecting solution should be at a temperature slightly above the body heat. After removal from the solution the brush should be allowed to dry before use. In following this advice care should be taken not to allow the hair of the brush to come in contact with the hands.

Irish News.

Brevities.

Mr. Thos. Johnston, Ph.C., the Medical Hall, Lisburn, has been nominated as a candidate for a seat on the local urban council.

The Chemists' Assistants' Associations of Limerick, Cork, and Waterford have joined the National Amalgamated Union of Shop Assistants, Warehousemen, and Clerks, following the lead of the Dublin Assistants' Association.

Mr. J. F. O'Donnell, Ph.C., has acquired the premises of the late Mr. Hegarty, the Diamond, Londonderry, and is opening business there. He was manager for J. M'Caul & Co., chemists, Ferryquay Street, Londonderry, for the past eleven years.

Mr. J. M. Wadsworth, Ph.C., has purchased the business carried on at 14 Bow Street, Lisburn, co. Antrim, by the late Mr. T. H. Edgar, Ph.C. Mr. Wadsworth served his apprenticeship with Mr. John Beatty, J.P., Ph.C., Clones, and has latterly been manager for T. W. Reynolds, Ltd., Dungannon.

Belfast.

Mr. Wm. McMullan (Thos. McMullan & Co., wholesale druggists, Belfast) has been elected a member of the Committee of the Ulster Banking Co., Ltd.

Picketing in connection with the assistants' strike in Belfast was actively resumed on January 5, when the shops of leading pharmacists were the objects of attention. Bands of pickets with posters marched up and down in front at intervals attracting crowds of people. The hopes of settling the strike of the chemists' assistants, which were high last week, have not been realised. No further negotiations have taken place since last week.

At the monthly meeting of the Belfast Corporation held on January 1 the Committee of Management of Hospitals and Dispensaries reported that, arising out of the application of the North Irish Pharmacists' Association (*C. & D.*, 1919, p. 1296), the chief tuberculosis officer had submitted a draft of the new terms and conditions of dispensing, under the city's tuberculosis scheme, which showed an increase of 50 per cent. on present prices. The Committee recommended that the draft be approved, and this was agreed to.

Coming Events.

Tuesday, January 13.

North London Pharmaceutical Association, St. Paul's Schools, Blenheim Road, Hornsey Road, Holloway, at 8.45 p.m. Business meeting.

Wednesday, January 14.

Rexall Chemists of Lancashire, Cheshire, etc., Exchange Station Hotel, Tithebarn Street, Liverpool, at 2.30 p.m. Mr. J. P. Breen (The "One-cent" Sale Expert, United Drug Co., Boston, U.S.A.) on "Retail Store Efficiency."

National Association of Chemists' Assistants (Bolton Branch), Baths Assembly Rooms. Dance. Members and friends invited.

Leeds Chemists' Association. Dinner and musical evening.

London (Western) Pharmacists' Association, Midland Hotel, St. Pancras, London, at 7 p.m. Cinderella dance. Tickets 10s. 6d. each from Mr. B. R. Wilkinson, 23 Cromwell Place, South Kensington, London, S.W.7.

Manchester Pharmaceutical Association, Chess Club Rooms, 65 Market Street. Mr. J. Cleworth on "War Photographs."

Sheffield Pharmaceutical and Chemical Society, Literary and Philosophical Society's Rooms. Lecture by Professor W. Palmer Wynne, F.R.S.

Thursday, January 15.

Glasgow and West of Scotland Chemists' Association, 165 Hill Street, Glasgow, at 8.30 p.m. Mr. J. H. Ramsay, Ph.C., on "Rupert Brooke, Soldier and Poet."

The Chemical Society, Burlington House, Piccadilly, London, W., at 8 p.m. Papers will be communicated on "The Condensation of Acetoacetic Ester with *p*-Dimethylamino-Benzaldehyde and Ammonia," by Messrs. L. E. Hinkel and H. W. Cremer; "The Action of Alcohol on the Sulphates of Sodium," by Messrs. G. S. Butler and H. B. Dunnelliff; "Guarana Tannin," by Messrs. M. Nierenstein, C. W. Spiers, and K. C. R. Daniel; "On the Hydrazino-thio-cyanates of Certain Divalent Metals," by Messrs. P. Ray and P. V. Sarkar.

Friday, January 16.

Royal Institution of Great Britain, Albemarle Street, Piccadilly, London, W.1, at 9 p.m. Professor Sir James Dewar on "Low Temperature Studies."

Scottish News.

Brevities.

The shortage of infant foods is still a difficulty to Scottish chemists.

That pharmaceutical prices must be much increased in the near future is regarded as certain.

Chemists in the Leven district are having the electric light installed. It is expected that a cable will be laid to Methil within a few months.

What is the rule (if any) among wholesale houses in allowing discounts? At least one large drug and pharmaceutical speciality house declines to recognise as wholesalers, in the matter of terms, provincial firms that do both wholesale and retail business.

Aberdeen.

The report of Robert Gordon's Technical College for the session 1918-19 states that the work in the chemistry department during that period has included courses for special students and two classes for pharmacy students. Under the heading "Pharmacy" we read: "This department, which seemed to have felt the effects of the war most, was, owing to the death of Mr. Gilbert Simpson, closed for the summer term, but was reopened at the beginning of the session now under review with Mr. E. Gower Bryant as its head. The number of students grew very rapidly, and the success in examinations was highly gratifying." In Aberdeen, as in other Scottish centres, there is a boom in chemistry and pharmacy, so far, at any rate, as study is concerned. Dr. Maitland, head of the chemistry department at Robert Gordon's College, states that the number of students has outgrown the existing accommodation. A new lecture-room and laboratory are urgently required. An addition to the teaching staff is also necessary. Mr. Bryant, head of the pharmacy department at the College, has a similar tale to tell. The number of applications for tuition in the course which opened in October was, he says, greatly in excess of the accommodation, and it was found necessary to select thirty-six candidates. The remainder are being held over till October 1920, and already the accommodation of the school is nearly booked up for that date.

Glasgow.

R. & J. Adams, 57 Howard Street, have been appointed Scottish agents for Robert Ferber, Ltd., capsule manufacturers, Oakley Street, London, S.E.

Mr. R. Montague Thorne, 24 Oswald Street, is representing Prichard & Constance (Wholesale), Ltd., London, N., proprietors of "Amami" perfumery, in Glasgow and the Western Counties of Scotland.

Professor A. Gray, F.R.S., Glasgow University, contributed to a recent issue of "The Glasgow Herald" a trenchant article on "The Conservation of Energy." The following extracts speak for themselves:

"It is also the case that many influential men of some native shrewdness, if of no scientific training... are just now inclined to postpone any direct facing of the awful task which lies before us, in the belief that 'something will turn up,' that some large draft on atomic energy, so far very securely locked up in matter, will be brought about, and enable us to live in peace and comfort without toiling and mulling in mines and workshops. To some extent this Micawber-like attitude is fostered by the opportunism of the men who lead the people, from so-called statesmen down through all ranks of the industrial world.

"It was suggested to me a long time ago by a Minister of the Crown, no less, that the efficiency of an electric motor which returned some 98 parts in 100 of the energy spent in driving it might be increased fourfold!

"The conservation and economic use of our stores of fuel is far and away the most important problem that exists. But attention to it is not called for by any large number of people who have votes, and so practically nothing is done."

French News.

(From the "C. & D." Paris Correspondent.)

THE PHARMACEUTICAL SOCIETIES of the Haut-Rhin, Bas-Rhin, and Lorraine have been unanimously elected members of the General Association of French Pharmacists.

LARGER DOSES OF CAMPHOR.—Dr. C. Cabannes calls attention to the increased doses of camphor now employed in injections. Half a gramme or a gramme may be prescribed for adults, and the daily dose may amount to three, four, and five grammes.

GOOD PROFITS UNDER GERMAN RULE.—In a recent discussion on regulating minimum prices for patent medicines M. Mengus mentioned that pharmacists in Alsace-Lorraine, under German rule, had a profit of 40 to 50 per cent. on such goods. In fact, they looked upon 40 per cent. as a minimum.

TOULOUSE MUNICIPAL LABORATORY.—The Toulouse local authorities announce a competition for the post of Director of the Municipal Laboratory. The initial salary will be 6,000 francs per annum, but the director also acts as Professor of General Science at the Fine Arts School, and receives an additional sum of 1,200 fr. per year for this work.

THE HOSPITAL HOUSE PHARMACIST COMPETITION (PARIS) will take place in February or March. Candidates are asked to communicate with M. Goris, chief pharmacist of the Dubois Hospital (municipal), and secretary of the Ex-House-Pharmacists' Association. Free preparatory lectures by hospital pharmacists for the benefit of such candidates are being given.

MEASURING BLOOD COAGULABILITY.—MM. Ch. Achard and L. Binet consider the present methods employed for measuring the time required for coagulation of blood are usually imperfect, on account of the contact with instruments. They propose to place the drop of blood in vaseline oil, and to use instruments smeared over with the same protective substance.

HONOURED PHARMACISTS.—M. Massol, Director of the Montpellier School of Pharmacy; M. Toubeau, chief of the anti-adulteration services at the Ministry of Agriculture; M. Lavaysse, who occupies a similar post at the Prefecture de Police; Assistant Professor Eibel, secretary of the Medicinal Plants Committee; M. J. A. B. Guillemain, naval pharmacist; and M. Mounie, prison pharmacist, have each been awarded the Cross of the Legion of Honour.

M. RENE DURAND read a thesis to the Nancy School of Pharmacy on the bacteria of various preparations considered as antiseptic, and the bacteria in pharmacies. He considers that micro-organisms cannot live in contact with substances such as cocaine hydrochloride, calcium oxide, mercury perchloride, etc., even when these are dry. The habitual sterility of boric acid is also noted. The author thinks that the subject of his essay is one hitherto unduly neglected, and worthy of study.

ARTIFICIAL TEETH.—The manufacture of artificial teeth in porcelain, M. René Dage assures us, originated in France in 1776. The inventor, M. Guérard, sold his process to another Frenchman named Dubois de Chamont, who patented it in France and in England soon afterwards. Another Frenchman carried the idea across the Atlantic, and, in 1825, works were established at Philadelphia. Just before the war an effort was made to found a French factory, which seemed to have made a promising start, but the outbreak of hostilities put an end to the experiment.

NO LADIES AS HOUSE PHARMACISTS.—At the beginning of the war, when necessity compelled numerous retail pharmacists to replace their mobilised assistants by girls, the Administration proposed to introduce the same practice into the Lyons hospitals. But M. Barbero, who was requested to draw up a report, made out such an excellent case for the *internat*, or house pharmacist, that the *status quo ante bellum* was not only maintained, but ex-

tended to the Croix-Rousse Hospital, where the ladies had already gained a footing. The great Bellecombe Hospital, the completion of which was retarded by the war, is also to have its *internat*. The salary is fixed at 150 frs. per month, *plus* board, and a competitive examination is already announced. This test is on the usual lines. The date of the competition, however, has not yet been made public.

NEW UNITS OF MEASURE.—A decree on new units of measure has recently been promulgated. Among the new terms are the *sthène* (as a unit of force), the *pièce* (pressure), the *lux* and *phot* (light), and the *lumen* (luminous flux). The thermie is defined as "The amount of heat necessary to raise 1° C. the mass of one ton (1,000 kilos.) of any body of which the specific heat is equal to that of water at 15°" at normal atmospheric pressure. "The terms *grande calorie* and *petite calorie* may respectively be given to the millithermie (one-thousandth of a thermie) and the microthermie (one-millionth)." In certain industries the quantity of heat extracted may be expressed in *frigories*, the *frigorie* being equal to the millithermie. Densities and alcoholic percentages are also dealt with.

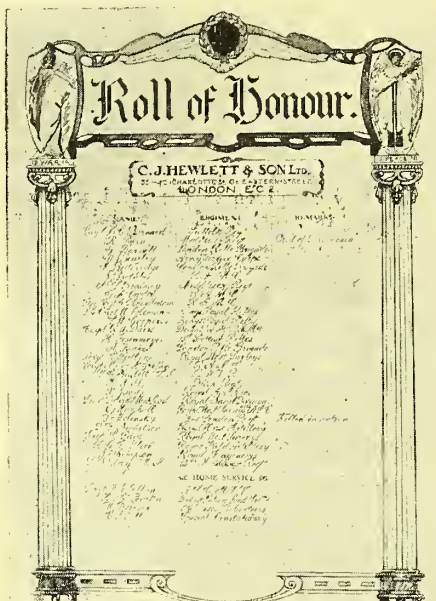
THE ELIMINATION OF TETANUS.—During trench warfare the prompt cleansing of wounds and the injection of anti-tetanic serum practically stamped out tetanus and gas gangrene. But when the final advance came the danger reappeared. The antiseptic treatment of uniforms and clothing, so that even should pieces be forced into the wound infection might be avoided, was proposed, and M. Taylor and Mlle. Davies reported excellent results with pixol (a mixture of cresol and soft soap); M. Carnot, with copper and zinc soaps. But MM. Heim, Fernbach, and Rullier decided to experiment further, and they found that a double impregnation of textiles, first with hydrofluosilicic acid (7.5 per cent.), and afterwards with coal oil (5 per cent.), to which a solution of mercury perchloride (1-4000) has been added, gives a maximum of safety.

WHOLESALE DRUGGISTS' ASSOCIATION.—At a recent meeting of the Association, which at the outbreak of the war voted in favour of boycotting German goods for a certain period (ten years being mentioned), M. Mathurin, speaking on the resumption of trade with Germany, said they need not hold out their hand to the Germans, but they would have to do as others did; for there were certain goods already entering France through the medium of British and American firms. It was a painful thing to say, but business with Germany would have to be recommenced. It was to their interest, for Germany must work to pay the Allies.—Several Alsatian firms have been elected to membership of the Association: MM. Albert Scheer, Henri Hofstetter, Albert Hoh, and Dieboldt (Strasbourg), Zündel and Kohler (Mulhouse), and Wagner and Claude (Colmar).

THE FRENCH PHARMACISTS' GENERAL ASSOCIATION, at a recent meeting, decided to increase the annual subscription of members to 8 frs. This will, it is estimated, assure a yearly increase in income of 35,000 to 40,000 frs. M. Henri Martin, having retired from the chairmanship of the Association, was appointed Honorary President. Similarly M. Crinon's long and valuable services as Secretary-General have been acknowledged by the title of Honorary Secretary. M. Haazen, speaking in the name of the Belgian National Pharmaceutical Bureau, recited the indictment of Belgian pharmacy against the Huns: Nine pharmacists were assassinated and two, badly wounded, escaped death by some miracle; three died from the effects of brutal treatment and several others never recovered their health; eight were sent into German penal establishments as civilian prisoners; forty-six had their houses burnt down by order, and many others saw their dwellings pillaged and damaged. One was killed by bombs during an aeroplane raid, and others had their houses destroyed by gun-fire or aerial bombs. M. Loisel mentioned that the first civilian victim of the war was the pharmacist Winsback, of Briey, shot in front of his own premises, having been found guilty of oblique conduct towards his Sub-Prefect.

War Memorials.

THE two rolls of honour that we reproduce below have, very appropriately, been placed in conspicuous positions in the offices of their respective companies. The first,



The Profiteering Act.

Notes.

REGULATIONS FOR IRELAND.

THE Regulations for joint local Committees and appeal Tribunals established in Ireland under the Profiteering Act, 1919, were published in "The London Gazette" of January 6.

QUININE SCHEDULED.

By the Profiteering Act, 1919, Order (No. 4), dated December 20, 1919, and published in "The London Gazette" of January 6, the Board of Trade has added quinine sulphate to the Schedule of "articles of a kind in common use by the public and articles which are not controlled." The previous Order was given in THE CHEMIST AND DRUGGIST, 1919, p. 1205.

EXPLAINING PROTECTED PRICES.

The current number of "The Anti-Cutting Record" contains a notice which, it suggests, may be displayed by pharmacists. It reads as follows:

Do not conclude you have been overcharged for a proprietary article just because it may bear on the label or wrapper prices lower than those we sell at. The war has raised the cost of production, and wholesale prices have all gone up enormously. Manufacturers cannot be expected to throw away their old labels and handbills, etc., bearing old prices; hence there are often discrepancies between these old quotations and present rates. Most of these rates are compulsory, and we have no alternative but to charge them as soon as they come in force, else the makers would discontinue our supplies. That would be an inconvenience to all our customers.

Appeals.

At the sitting of the London Profiteering Appeal Committee on January 2, Mr. John Booty Tillott, Ph.C., 37 Marsham Street, S.W., appealed against the decision of the Westminster Profiteering Committee, who had ordered him to refund 3d. on $\frac{1}{4}$ lb. of camphorated chalk, for which 1s. 3d. was charged (*C. & D.*, 1919, p. 1367). Mr. Walter Frampton, who appeared for the appellant, said that the point raised by the appeal was whether in fixing the selling price of an article regard should be had to the current market price, or whether the retailer was bound to search back for his invoice in order to ascertain the cost of certain ingredients he had purchased months previously. In other words, could it be said that he had obtained an unreasonable price when he charged the current market price? He added that camphorated chalk had considerably increased in price lately. The appeal was allowed.

At the sitting of the Essex Profiteering Committee on January 2, Mr. William John Tiltman, chemist and druggist, 213 High Street North, East Ham, appealed against the decision of the local Profiteering Committee ordering him to refund 2d. on a charge of 5d. made for 1 oz. of cream of tartar and directing a prosecution (*C. & D.*, 1919, pp. 1298, 1465). Mr. Fortune, who appeared for the appellant, submitted that 3d. per oz. was less than the current wholesale price of cream of tartar. When before the local Committee, Mr. Tiltman had been unable to trace his invoice for this consignment; now, however, he was able to produce it, and it showed the wholesale price to be 4s. 10 $\frac{1}{2}$ d. per lb. The appeal was allowed.

Complaints.

EAST FINCHLEY.—At the sitting of the Profiteering Committee on January 7, Boots (Southern), Ltd., were the respondents in a complaint regarding the sale of a bottle of Phillips's Milk of Magnesia at 1s. 3d., the protected price. The case was defended by the Chemists' Defence Association, Ltd. The facts of the sale being admitted, it was stated for the respondents that the net price in 6-dozen lots was 9s. 11d. per doz., giving a profit of 33.9 per cent. on selling price, or 51.3 per cent. on cost. The corresponding pre-war figures were 8s. 6 $\frac{1}{2}$ d., 28.5 per cent., and 40.5 per cent. Mr. Lionel Cooper (C. H. Phillips Chemical Co.) gave evidence that the

retail price was raised from 1s. to 1s. 3d. in 1917. The complaint was dismissed, after a hearing which began at 10 P.M. and lasted nearly an hour.

ISLINGTON.—At the sitting of the Profiteering Committee on January 7, Parke's Drug Stores, Ltd., were the respondents in a complaint of alleged overcharge for dispensing at a local branch. Mr. Herbert Skinner, who appeared for the respondents, said that the facts of the sale were not disputed, the prices charged being 2s. 6d. for the mixture and 1s. 3d. for the mouth-wash. He relied on Section 1 (2) of the Profiteering Act, which defined a reasonable rate of profit. Before showing the cost of dispensing in this case he pointed out that, as dispensing had been held in the High Court to be a sale, this mixture and mouth-wash could only be sold by a pharmacist; he quoted relevant passages from the Pharmacy Act, 1868, and the Poisons and Pharmacy Act, 1908. The mixture under consideration contained an insoluble powder, which brought it technically under the heading of emulsions. The pre-war and post-war costings were as follows:

1914		1919
Pence		Pence
0.14=1	...	0.41=1
0.27=1	...	2.19=3
0.01=1	...	0.16=1
0.33=1	...	1.65=2
0.75=1	...	1.81=2
0.25=1	...	1.44=2
0.15=1	...	0.37=1
2.90=7		8.03=12

The charge in 1914 would be: Cost of ingredients, 7d.; dispenser's time, 7.5d.; Peat figures on establishment charge on turnover, 25 per cent.; Peat figures on average percentage net profit, 27 per cent. Adding to cost (14.5d., say 1s. 3d.) the sum necessary to yield 50 per cent. on sale price, we arrive at a total of 2s. 6d., which, therefore, was the correct price in 1914. On the other hand, in the case of a similar sale at 2s. 6d. in 1919, the cost (12d. + 15d.) leaves a net profit of only 3d. To put the matter in another form, the gross percentage profits in 1914 may be shown to be: Mixture, 20.3; mouth-wash, 7.5. The corresponding ones in 1919 were: Mixture, 14.47; mouth-wash, 6.61. Mr. Alfred Higgs, J.P., was called to give confirmatory evidence. After a lengthy hearing, the Committee ordered a refund of 6d. Notice of appeal was given.

KENSINGTON.—At the sitting of the Profiteering Committee on January 5, a complaint was heard regarding a charge of 2s. 3d. made by John Barker & Co., Ltd., High Street, for an 8-oz. bottle of liquid paraffin. Mr. Ernest Clyde appeared for Mrs. H. M. Fowler, the complainant. The facts of the case having been stated, a representative of the respondents said that the specific gravity of the liquid paraffin must be taken into consideration. He would not put it forward as a defence, but he thought that the Committee would find that the paraffin purchased elsewhere by the complainant was inferior to that purchased from Messrs. Barker. The Chairman: If you are going to prove that, you must have evidence of it. The manager of the department in which the liquid paraffin was sold gave evidence to the effect that Messrs. Barker had discontinued the sale of the American variety nine or ten months ago, and now sold only the Russian. The Chairman: Your evidence comes to this—that the bottle ought to have been sold at 1s. 6d., and the defence is that it was a mistake. —Yes. In reply to another question, respondents' representative said that the paraffin cost 1s. 2d. a bottle. The chairman, reading from an invoice, said that 20 gallons of liquid paraffin had been purchased at 14s. a gallon; that worked out at 8 $\frac{1}{2}$ d. a bottle, to which were added the cost of bottle, establishment charges, and other items, making in all 1s. 2d. The gross profit on a sale at 1s. 6d. would be 22.2 per cent. After consideration in private, the Committee ordered a refund of 9d. The chairman added that after considerable hesitation they would, in the circumstances, refrain from recommending a prosecution; but they would not fail to make an order to prosecute if there was a repetition of that kind of charge.

TORQUAY.—At the sitting of the Profiteering Committee on January 1, a complainant stated that Mr. F. March, chemist and druggist, had sold her a 1-oz. bottle of essence of peppermint for 2s. 9d., including the bottle, whereas it had been bought from other shops at 1s. 6d. and 1s. 7d. inclusive. Mr. P. H. W. Almy, who appeared for Mr. March, said that he relied upon the "Minimum Retail Price List"; according to this list (for November) essence of peppermint was 2s. 6d. per oz. It had gone up in price over 300 per cent. since 1914, and Mr. March had charged only 250 per cent. above the 1914 price. He regarded the complaint as frivolous. Mr. March, giving evidence, said that the oil was 25s. per lb. in 1914, and now stood at 68s. 6d., while the spirit had increased from 31s. 6d. a gallon to 102s. 6d. The chairman said he calculated that the ingredients in an ounce would cost 1s. 2d. Mr. March: But surely something must be allowed for waste, filtration, and evaporation. Mr. J. Taylor, chemist and druggist, Lucius Street, gave confirmatory evidence. Mr. Almy said he relied on Section 1 (2) of the Act, which laid down that, if the ratio of profit was not greater than in 1914, it was not unreasonable. After retirement, the chairman said the Committee considered the price an excessive one, but as far as Section 1 (2) of the Act was concerned they proposed to put the whole facts and prices before the Board of Trade. The case was accordingly adjourned.

WANDSWORTH.—At the sitting of the Profiteering Committee on January 6, the price charged for a bottle of cod-liver oil at the Balham branch of Boots (Southern), Ltd., formed the subject of a complaint lodged by a Mrs. Reed. It was stated on behalf of the complainant that the price charged, 1s. 4d., was considered excessive because bottles previously purchased at that shop had cost 1s. 2d. Mr. Bramall, who appeared for the respondents, handed in a letter from the wholesalers, certifying that the wholesale price was 10½d. a bottle. The profit worked out at 23 per cent. At the price of 1s. 4d. a bottle the profit was just under 33 per cent. The overcharge of 2d. had been refunded. The assistant who served the young lady had recently been demobilised, and instead of referring to the price-list, which would have shown 1s. 2d. as the price, he thought the price was 1s. 4d., and charged that amount. Replying to the chairman, Mr. Bramall said the price-list was not put up in the shop. There was a book of prices with alphabetical pages, which could not be hung up. Of course a man who had been long at it knew the prices by heart. The memories of men who had been in the Services were not as good as before. Mr. David George Davis, the assistant in question, stated in evidence that he thought the mistake arose because, in the first place, he was not used to counter-work. The bottle sold to complainant was not a standard size, nor was the oil a brand they sold most of. He did not consult the price-list as he should have done. Mr. Bramall: Do you get any pecuniary benefit?—No; I may get reprimanded. Cross-examined: Do you know the tendency of prices is to go up as the period of maximum demand sets in?—Yes. Would you agree with Mr. Lloyd George that to force up the price of a commodity merely because there was great need for it would be unconscionable?—Witness's reply was inaudible. In reply to a question, Mr. Bramall said he believed that the pre-war profit on the article was 27 per cent., compared with the present 23 per cent. Mr. Percy Sparks, chemist and druggist, the London manager of Boots, Ltd., said the only consideration in prices was the market price prevailing. They would not attempt to take advantage of the public. In the case of cod-liver oil, the price depended on the price charged by the producers in Norway. Mr. Harold Crossland Hirst, chemist and druggist, manager of the Balham branch of Boots, Ltd., said that increases in prices were contained in a circular-letter, which might include hundreds of articles. The first thing done was that prices were altered in the price-list, and the circular-letter was then handed round among the staff. The letter was then filed. It was quite impossible to remember all the prices. The bottle was sold in the evening rush. A Member: Had Mr. Davis seen that list before he went behind the

counter?—Not immediately before, but he had seen it. After deliberation, the Committee decided that the proper price for the bottle of cod-liver oil was 1s. 2d. The defendants would have to refund 2d., which had already been done. The Committee were not satisfied on the question of there having been a genuine mistake, but they did not think it was a case in which a prosecution should be ordered.

WORTHING.—At the sitting of the Profiteering Committee on January 6, a charge of profiteering was made against Boots, Ltd. The complainant said that on July 16, 1918, he purchased an elastic legging at Messrs. Boots' local branch for 3s., and one for 3s. 1½d. on February 13, 1919, but on December 16, 1919, he was charged 5s. 1½d. for one exactly of the same kind. On the bottom of the box were the figures 11.7.18. He eventually received a letter from the Nottingham office of the company refunding 2s. This letter, which was now read by the clerk, stated that the figures on the bottom of the box had no significance at all, as it was not the practice of the company to use such markings. Mr. Percy Sparkes, chemist and druggist, who represented the respondents, said it was the practice of Sir Jesse Boot to give satisfaction to the customers whether he considered there was a good complaint or not. The article in this case was of a class for which there was only a comparatively small demand, and it was only reasonable there should be a slightly higher profit on it than on an article for which there was a brisk and constant demand. The present cost price of the legging was 3s. 8½d., and to sell it at 5s. 1½d. gave an approximate profit of 22½ per cent., as against 27 per cent. before the war. In reply to the clerk, Mr. Sparkes said he believed the cost of the legging was 2s. 5d. He added that there was considerable loss in these things through deterioration. Mr. W. T. Frost, chemist and druggist, giving evidence, said that the prices were adjusted every month according to the rise and fall of the market. A profit of 33½ per cent. would be reasonable on this kind of article. The Committee decided to adjourn the case pending the arrival of a decision from the Board of Trade in a similar case.

Prosecutions.

At Aberdare Police Court, recently, Mr. E. Evans, chemist and druggist, was fined 2l. for charging an excessive price for whole pepper. Mr. Thomas, solicitor, instructed by the Chemists' Defence Association, Ltd., defended.

At Mansion House Police Court, London, on January 1, Mr. James Lister, chemist and druggist, manager of Walbrook Pharmacies, Ltd., 30 Walbrook, E.C., was summoned for having sold a 4-oz. bottle of lime water for 1s. 6d. (*C. & D.*, 1919, p. 1462). Mr. Zeffertt, solicitor, appeared for the defendant, who pleaded "Not guilty." The facts were admitted. Mr. Pullen, the clerk to the local Committee, giving evidence, was asked in cross-examination whether anything was said about the rates of profit on the lime water before the war. He replied that he could not say. Mr. Zeffertt said that his client was very seldom asked for lime water. A bottle once opened quickly deteriorated—the amount he gave was immaterial. The overhead charges at Walbrook were enormous, and what was a reasonable price at one part of London would not be so at another. Mr. Lister, giving evidence, said that the rate of profit was not more than the rate before the war. The Lord Mayor remarked that this was the first case of this character that had come to that Court, and rather difficult to settle. Defendant had, however, made admissions that showed the charge of profiteering had been established. A fine of 5l., with 2l. 2s. costs, was imposed.

At Tottenham, on January 1, Boots (Southern), Ltd., were summoned at the instance of the local Profiteering Committee for selling a bottle of Fellows' Syrup at 8s. 6d. (*C. & D.*, 1919, p. 1333). The clerk and executive officer to the Committee, giving evidence, said the wholesale price was 53s. per doz. in 1914 and 73s. 9d. per doz. in 1919. The Magistrate: Considering the present price of food-stuffs, this bottle ought to be 10s. Mr. Patrick Hastings, K.C., for the defence, said this was the only bottle of 1914 stock that remained in all of Messrs. Boots' shops,

and they could have sold it many times over, at a time when supplies were cut off, had it not been overlooked. The Proprietary Articles Trade Association issued a price-list on behalf of the manufacturers, below which retailers were not permitted to sell. This was recognised as the current market price, whenever the stock was purchased, and were a retailer to sell below it his supplies would be stopped. The Board of Trade were communicated with, and a reply was received stating: "If a trader sells at the current market price, notwithstanding that such price is higher than originally paid for the article, he is not profiteering." The Magistrate: That is common sense. Mr. Hastings said that, if the Court found the company had been guilty of profiteering, a large number of proprietary articles would have to be withdrawn from sale, and the firm's business would be in a state of chaos. Evidence as to the quality of the syrup was given by Dr. Luff, physician at St. Mary's Hospital. Mr. William Johnston, Ph.C., assistant-secretary of the P.A.T.A., said that if the firm did not charge the current price fixed by the Association, it would be refused supplies. The case was dismissed.

Corner for Students.

Conducted by Leonard Dobbin, Ph.D.

Communications should be addressed "Corner for Students, 'The Chemist and Druggist,' 42 Cannon Street, London, E.C. 4."

QUALITATIVE ANALYSIS.

A MIXTURE of not more than three salts will form the subject of the next exercise in qualitative analysis. The mixture will comprise acids and inorganic bases occurring in the British Pharmacopœia, and is to be submitted to a thorough systematic examination, all its constituents are to be detected, and proof is to be given that the substances detected are the only constituents of the mixture.

Students' applications for portions of the mixture of salts (accompanied by a *stamped and addressed envelope*, not a stamp merely) will be received up to Tuesday, January 13, on which day the samples will be posted. Students' reports will be received up to Saturday, January 24. Each report should contain a concise account of the work done, and should include a list of the constituents detected. In this list any substance regarded as an accidental impurity should be distinguished from the essential constituents of the salts composing the mixture.

The analysis announced above forms the third exercise in the analytical tournament for the current winter session. The usual monthly first and second prizes in this series of analyses will be awarded only to apprentices or assistants who are preparing for the Qualifying examination of the Pharmaceutical Society of Great Britain or of Ireland, which fact *must be attested on their reports*.

Report on the December Analytical Exercise.

The powder distributed to students on December 8 contained seven parts by weight of ammonium ferric sulphate (iron alum), two parts of potassium chromic sulphate (chrome alum), and one part of potassium chromate. The calculated composition of such a mixture is:

Fe	...	...	...	8.1.
Cr	...	...	...	2.1
K	...	...	...	5.6
NH ₄	...	...	...	2.6
SO ₄	...	...	...	35.6
CrO ₄	...	...	...	6.0
H ₂ O	...	...	...	40.0
				100.0

The powder also contained, as impurities, traces of manganese and of sodium.

Samples of the powder were distributed to eighty-two students, and forty-seven reports were sent in for examination. Iron was the only constituent which was detected by every correspondent. Potassium was missed

by eight, ammonium by five, the sulphuric acid radical by one, and the chromic acid radical by two. Only three students tested for chromium present as chromic salt in the original powder, and two of these succeeded in definitely proving its presence. In twelve cases the abundant evolution of water when the powder was heated in a dry test-tube was not reported.

The number of high scores attained on this occasion indicates that the exercise was of a distinctly simple character, in so far, at least, as regards its main features. There were, however, two more or less guarded secrets, one of which was penetrated by not more than three students, while the other remained altogether undiscovered. The former of these was the presence of chromium as chromic salt, in addition to its presence as chromate, while the trace of manganese, mentioned above, constituted the latter. The most satisfactory way to recognise the chromium present as metallic radical was to wash the solid residue filtered off during the preparation of the sodium carbonate extract very thoroughly with hot water, in order to remove all traces of the sodium chromate adhering to it, and then to convert the chromium present as hydroxide in this residue (along with ferric hydroxide) into chromate by heating with water and sodium peroxide or by fusing with sodium carbonate and potassium nitrate. It may be mentioned, in passing, that the possibility of chromium being present in both forms of combination only seems to have occurred to very few students. The trace of manganese was not clearly recognisable on testing the original powder, either by fusion with sodium carbonate and potassium nitrate or by boiling it with dilute nitric acid and lead peroxide, the yellow colour of the chromate obscuring, in both tests, the coloration due to manganese. Here, again, the well-washed residue from the preparation of the sodium carbonate extract was a suitable material to which to apply the test with dilute nitric acid and lead peroxide, and when this was done a quite distinct purple colour, due to manganese, was produced. Incidentally, attention may be directed to the fact that the application to the sodium carbonate residue of the tests just mentioned illustrates the kind of purposes for which this residue may, on occasion, be employed, and is, moreover, a justification of the advice more than once tendered in this column not to throw away any such residue forthwith, as is usually done, but to retain it until the analysis is completed.

Numerous reports of the presence of the phosphoric acid radical were received. These were apparently due to the employment of inappropriate solutions of ammonium molybdate. Solutions of this reagent, which do not remain quite clear when boiled, either alone or with the addition of moderate quantities of hydrochloric or nitric acid, are not suitable as reagents, since the precipitation of pale yellow molybdic anhydride may obscure the formation of the brighter yellow precipitates due to phosphates or arsenates.

Sodium carbonate containing chloride has again caused frequent uncertainty regarding the presence or absence of chloride in the powder. In the present instance it was easy to escape this uncertainty by dissolving the powder in dilute nitric acid and adding silver nitrate to the solution, which then remained perfectly unclouded. It is not always possible, however, to adopt this plan.

A precipitate of sulphur formed on passing hydrogen sulphide was very commonly reported incorrectly as "No precipitate"; and in cases where the formation of this precipitate was admitted the assumption was usually made that it consisted of sulphur only, while this was seldom put to the test of experiment.

PRIZES.

The first prize for the best analysis has been awarded to

ERIC L. SHEPHERD, 112 Church Street, Littleborough.

The second prize has been awarded to

HOWARD BRANSBY, Grove Street, Wilmslow, Cheshire.

First Prize.—Any scientific book that is published at a price not greatly exceeding half-a-guinea may be taken as a first prize.

Second Prize.—Any scientific book which is sold for about five shillings may be taken as a second prize.

The students to whom prizes are awarded are requested to write at once to the Publisher naming the book or books they select.

MARKS AWARDED FOR ANALYSES.

1. Correspondents who are unqualified:

E. L. Shepherd (1st Prize) ...	97	T. E. P. ...	85
H. Bransby (2nd Prize) ...	96	Secundus ...	81
Ferrum ...	95	A. Z. ...	79
Hirudo ...	95	Victor ...	78
Gee-Gee ...	94	A. M. M. ...	77
Ergo ...	93	Elephas ...	77
Nisus ...	92	Stella ...	77
Krap ...	91	$x-y^2$...	77
Serum ...	90	Scout ...	76
Radio ...	89	Sulphonic ...	76
Rousschuk ...	89	Benzaldehyde ...	75
Evelyn ...	88	Margaret ...	75
Rear Rank ...	88	Nitrosyl ...	75
Shanks ...	88	Pentane ...	75
Conor ...	87	Scopolamine ...	75
Evo ...	87	Pussyfoot ...	74
Gypsum ...	87	Atropa ...	75
Myosis ...	87	Rojam ...	75
Neon (Leeds) ...	86	Trigonella ...	75
Notac ...	86	Neon (Hastings) ...	66
Osmium ...	85	Gintario ...	46
Ashes ...	84		

2. Correspondents who are qualified:

Amateur ...	95	Prospector ...	81
Catalytic ...	55	Tautomerism ...	87

TO CORRESPONDENTS.

HIRUDO, GEE-GEE, AND OTHERS.—It is almost certain that the slight colour effects due to the trace of manganese were obscured by those due to chromium in the tests for the former which were applied to portions of the iron-group precipitate after this had been treated with sodium peroxide. Very thorough washing with hot water was required to remove the chromate completely from this precipitate.

ERGO.—The action of an acid solution of a ferric salt upon hydrogen sulphide is one of oxidation, not of reduction. Be careful not to employ the latter term (as it is very commonly, but usually quite erroneously, used by pharmaceutical students) instead of the word "interaction."

KRAP.—The pink residue on charcoal with cobalt-nitrate, suggesting magnesium, was most likely some undecomposed cobalt-nitrate. The trace of calcium probably came from tap-water.

SERUM.—Zinc which is not free from even the slightest trace of arsenic is quite useless in applying Marsh's test to an unknown substance.

RADIO.—The appearance which led you to report a nitrate present was due simply to differences in colour and in density of the two layers of liquid. There was not any darker layer produced at the interface.

EVELYN.—You left unexplained the production of a precipitate in the zinc group. The reduction of permanganate solution which you observed in testing for a citrate was probably due to some of the added alcohol which you had not completely boiled out or to some impurity in the alcohol.

REAR RANK.—Note that iron in the ferrous state could not be present in an acid solution containing the chromic-acid radical. The blue colour you observed in testing for a ferrous salt by means of potassium ferricyanide was due to traces of reduction products present in an old solution of the latter. Procure some sodium carbonate which is free from traces of chloride and sulphate.

SHANKS.—It is not quite clear from your report whether or not you tested properly for chromium in the iron-group precipitate, but it seems as if you had employed lead acetate, as a test for a chromate, in examining a solution that could only contain chromium as a chromic salt, for which latter lead acetate is not a test.

CONOR.—The supposed sulphur dioxide was simply hydrochloric acid volatilised, on heating, from the re-

agent you had added. Note that chromic acid is oxidised—not reduced—by hydrogen peroxide in acid solution.

EVO.—The reactions for a tartrate which you reported must have been devised to fit in with a preconceived idea. The particles in the powder which you supposed to be ferric ammonium tartrate were really chrome alum.

GYPNUM.—You are not sufficiently careful in observing the effects of tests. Your reports of "No action" when the powder was heated in a dry test-tube, and when a sulphuric-acid solution of it was heated with alcohol, are both as far as possible from fact.

MYTOSIS.—The precipitate you obtained when testing for phosphate or arsenate by means of ammonium molybdate most likely consisted of molybdic anhydride, which is often formed when an improperly prepared solution of ammonium molybdate is boiled with an acid. The "hepar" test—fusion on charcoal with sodium carbonate—is not distinctive for sulphates; it merely indicates "sulphur in some form." The precipitate you took for silver arsenate was silver chromate.

NEON (Leeds).—Lead acetate cannot be used to separate the sulphuric and the chromic acid radicals, since lead sulphate and lead chromate are both insoluble salts.

NOTAC.—You report a strange experience in examining a portion of the sodium carbonate extract to which you had added excess of hydrochloric acid and then ammonia to neutralise, inasmuch as silver nitrate produced no precipitate, notwithstanding the fact that chlorides must have been present.

ASHES.—Ascertain whether your solution of ammonium molybdate remains perfectly clear on boiling, with and without the addition of some concentrated nitric acid; also test your manganese peroxide for chloride.

T. E. P.—All the tests for iron which you employed proved that it was present in the ferric state only.

SECUNDUS.—After treating the hydrochloric-acid solution of the iron-group precipitate with sodium peroxide and filtering, the chromium was in the filtrate, and hence fusion of the washed precipitate with potassium nitrate could not lead to the formation of more chromate.

VICTOR.—A more systematic and exhaustive report would have commanded a higher position in the list, in view of the general accuracy of your conclusions.

A. M. M.—Your analysis was incomplete in so far that you omitted to test for ammonium and for the nitric and boric acid radicals.

BENZALDEHYDE.—The sulphuric-acid radical present was much more than a trace. Why did you omit to test for chromium in the iron-group precipitate?

NITROSYL AND TRIGONELLA.—Read the first sentence of the reply to "Rear Rank."

ATROPA.—Cations—not "cathions."

ROJAM.—The precipitate produced by silver nitrate in the neutralised portion of the sodium carbonate extract was crimson rather than yellow, and it consisted of silver chromate. You do not seem to have made any attempt to ascertain in what form chromium was present.

NEON (Hastings).—Study the general remarks above and the replies to other correspondents, in which most of the noteworthy points in your report are referred to.

GINTARIO.—Hydrogen sulphide reduced the iron from the ferric to the ferrous state, hence the reaction you observed with potassium ferricyanide. You must not conclude that potassium, calcium, etc., are absent because you observe a bright yellow flame due to sodium.

AMATEUR.—You probably washed very thoroughly the residue filtered off from the sodium carbonate extract, prior to examining it by a method which involved the production of a chromate from any chromic hydroxide which it might contain; but if you did, this should have been stated explicitly in your report.

TAUTOMERISM.—Your report leaves the chromium present as hydroxide in the iron-group precipitate unaccounted for.

MANIOCA.—An Army Council Instruction issued this week states that a recent analysis of manioc has revealed the fact that this commodity is in all respects a suitable substitute for either sago or tapioca. Issues of the latter commodities will, therefore, be suspended until the present stocks of manioc are exhausted.

Legal Reports.

Agents and Principals.—In the City of London Court, before His Honour Judge Atherley-Jones, K.C., on June 5, Colin Campbell & Co., glass-bottle merchants, 1 King's Arms Yard, Coleman Street, sued P. H. Galloway, Ltd., manufacturing chemists, 154 Walworth Road, for 81l. 8s. 8d. for 75 gross 3-oz. flat bottles at 18s. 6d., and boxes supplied. Defendants said they had paid the V.C. Glass Manufacturing Co., Ltd., for the goods, as they were the plaintiffs' principals. Mr. Campbell said that the defendants had no business to have paid the V.C. Co. He admitted he had been acting as the agent for the V.C. Co. and selling all their glass bottles, at a commission of 10 per cent., and for financing the company a further 2½ per cent. Then he relinquished his representation of the V.C. Co. He obtained bottles from several firms besides the V.C. Co. The exceedingly brisk demand for glass bottles was so constant that he could not keep much of a stock. It was mostly an imported stock. Mr. Jack Galloway, one of the defendants' directors, said he paid the V.C. Co. because they gave him notice so to do. Plaintiffs added that the V.C. Co. owed them some thousands of pounds and that litigation was going on between them. Judge Atherley-Jones, K.C., found for the defendants, with costs, and said that no doubt commercially the case was of importance in reference to agents and principals.

Ammoniated Tincture of Quinine.—At the Sutton (Surrey) Petty Sessions, on January 1, Parke's Drug Stores, Ltd., were summoned on two counts for having sold ammoniated tincture of quinine deficient in ammonia gas. Mr. G. W. Fox, solicitor, Kingston-on-Thames (instructed by Mr. Alfred Higgs, J.P., treasurer of the Thames Valley Pharmacists' Association, who prepared the defence), appeared for the defendants. For the prosecution an analyst's certificate was put in to the effect that the respective samples contained 0.725 and 0.723 gram per 100 c.c. of tincture, showing a deficiency of ammonia gas to the extent of 20.3 and 20.5 per cent.; the certificate stated that the percentage of ammonia gas in the tincture should not be less than 0.91 gram. The inspector of the Surrey County Council stated, in evidence, that when he divided the samples he was very careful to prevent any loss of ammonia gas. By Mr. Fox: He had never summoned anyone before for a deficiency of ammonia gas. There was no standard for ammonia gas in the British Pharmacopœia, but Mr. E. J. Parry, in his book "Food and Drugs," states that about 1 per cent. is usually present. Mr. Fox, for the defence, said that in the B.P. there was no standard for any of the tinctures which contained ammonia; the deficiency in this case was a mere fraction, and he should rely on the case of *Hudson v. Bridge*, which decided that if in the process of manufacture the finished article varied, there was no sale to the prejudice of the purchaser. Mr. E. J. Parry, B.Sc., F.I.C., called for the defence, proved that there was no standard for ammonia gas in the finished product. Ammonia gas was very volatile. There would be variation in different samples for many reasons—e.g., temperature and length of time taken in filtering, the thickness of the filter paper used—these alone would affect the finished product. The deficiency of ammonia gas in this case only amounted to the value of 7½d. in a 4-oz. bottle. The ammonia was used to facilitate the solution of the quinine; should the ammonia fall appreciably below 0.5 gram per 100 c.c., quinine would be precipitated. In every case in the B.P. where ammonia was used in tinctures and filtration was a part of the process, the compilers had refrained from giving any standard for ammonia in the finished product; and the obvious inference was that they recognised that some of this highly volatile ingredient must be lost in the process of manufacture. By the inspector: His book on "Food and Drugs" was written before the publication of the B.P., 1914. The Bench dismissed both summonses.

Camphorated Oil.—At Burnley, on December 31, 1919, Mr. Thomas Howarth, chemist and druggist, Trafalgar Street, was summoned for selling camphorated oil not of the quality demanded. It was stated for the prosecution that on November 25 a purchase of camphorated oil was made at defendant's shop. On a sample being analysed, it was certified to be 8.4 per cent. deficient in camphor. The prosecution had no reason to believe defendant had done anything to the oil, and it was probable that he sold it as he received it. But provision was made in the Act for a written warranty with goods. Apparently in this case there had been no warranty given. Mr. Schierwater, who defended, said that, while he admitted defendant was technically liable, he wanted to prove that personally he was quite unaware he was doing anything wrong. He sold the camphorated oil exactly as he received it from the wholesalers, and a member of the wholesale company would admit their willingness to replace Mr. Howarth as defendants. The Clerk: Are they willing to indemnify him in any fine there may be?—Undoubtedly. Mr. G. H. Burrows, managing director of John Thompson, Ltd., wholesale chemists, Liverpool, said his company supplied the oil to defendant. They made very large quantities. The company wished to take the whole responsibility. He had had analyses made of the oil, and admitted there was a deficiency in camphor. The only theory he could advance was that a workman had inadvertently left the cover off the receptacle in which the mixture was made, and the evaporation had caused the deficiency. Their firm had been established fifty years, and, while hundreds of samples had been taken and analyses made, no article had ever before been found wrong. The chairman said the Bench had a good deal of sympathy with defendant, and would express it in their decision. Still, it was necessary the public should be protected. Having regard to all the circumstances, the Bench were prepared to dismiss the case on payment of costs.—At the same Court, Mr. James Arthur Tomlinson, chemist and druggist, Rosegrove Lane, was similarly summoned. Mr. Cummings, who appeared for Mr. Tomlinson, said he had had his sample analysed, and there was a discrepancy between the certificate of his analyst and the certificate of the thorough analyst. He therefore asked that the third sample should be sent to the Government analyst. The Magistrates ordered the third sample to be sent to the Government analyst, and adjourned the case for three weeks.

New Companies.

ROCKCASTLE CHEMICAL CO., LTD. (P.C.).—Capital, 5,000l. Objects as indicated by the title. R.O.: Spencer House, South Place, London, E.C. 2.

HOWARDS & SONS, LTD. (P.C.).—Capital, 250,000l. Objects: To carry on the business of manufacturing, pharmaceutical, and analytical chemists, druggists, dry-salters, oil and colour men, etc. The first directors are: A. G. Howard, D. L. Howard, E. F. Howard, G. E. Howard, and C. F. Howard. R.O.: Uphall Works, Ilford, Essex. [Owing to the reorganisation of the share capital it was necessary to register a new company. There will be no interruption whatever of the business.—ED.]

W. WOODWARD (1920), LTD. (P.C.).—Capital, 177,000l. Objects: To take over the business of a proprietary medicine manufacturer and pharmaceutical chemist, etc., formerly carried on at Chaucer Street, Nottingham, and recently at Fortress Road, London, N.W., as "W. Woodward, Ltd.," also the recipes relating to the manufacture of "Gripe Water" or "Infants' Preservative," and other medicinal preparations. The subscribers (each with one share) are: W. H. Woodward, 81 Fortress Road, N.W. 5, manufacturing druggist; E. A. Umney, 66 Park Street, Southwark, S.E. 1, pharmaceutical chemist. R.O.: 81 Fortress Road, Kentish Town, London, N.W. 5. [This registration is due to a reorganisation of the objects and capital of the company, and does not affect the continuity of the business.—ED.]

British Pharmaceutical Conference.

THE following is the revised Research List for 1919-20, the suggestions in which should be carefully studied by those who are desirous of undertaking researches connected with the subjects covered by the objects of the Conference. A special fund exists to defray expenses connected with research work. The Executive Committee will be glad to receive applications from members for grants from this fund.

Acetylsalicylates.—Which is the most suitable salt for pharmaceutical purposes? Do the salts possess any advantages over acetylsalicylic acid? (see *Y.B.*, 1908, 237; 1909, 109; 1911, 215; 1912, 227, 230; 1917, 117).

Apiole.—A formula for the preparation of a standard product is required (see *Gen. Index* and *Y.B.*, 1905, 23; 1907, 187; 1909, 100; 1910, 142; 1913, 285; 1914, 125).

Assay Processes (Pharmacopœial).—Improved methods for the assay of several B.P. chemical products are needed, examples: Acid, hydrocyanic, dil., liquor formaldehydi, sodii arsenas anhydrous.

Belladonna Root (Indian).—Parcels of this drug have given abnormal figures on analysis, indicating the presence of some base of a lower molecular weight than atropine. An investigation of this drug is required (see *Y.B.*, 1913, 267; 1915, 217; 1917, 195; 1919, 210).

Bismuth Phenate.—An examination of commercial samples would be of interest (see *Gen. Index*).

Calx Sulphurata.—An examination of the processes of manufacture and the purity of commercial samples is needed.

Cannabis Indica.—The physical characters and therapeutic value of the official preparations are stated to be liable to considerable variation. An investigation is required to determine whether any chemical standard is possible, and if not, whether physiological tests should be introduced. A report on the comparative values of the official Indian drug and those varieties produced in Goa, Africa, America, and Greece is desirable (see *Gen. Index* and *Y.B.*, 1908, 40, 229; 1909, 43, 110, 240; 1910, 143; 1911, 163; 1912, 247, 266; 1913, 263, 264; 1915, 227; 1917, 218, 271; 1918, 229; 1919, 212).

Casein Foods.—A comparative examination of the so-called "Foods" or "Nerve Tonics" of the type represented by the combination of soluble casein and glycerophosphates, etc., would be useful (see *Gen. Index* and *Y.B.*, 1915, 241; 1918, 369).

Casein (Soluble).—Details of improved processes for the preparation of soluble casein are required.

Colouring Agents.—An investigation with a view to determining the most suitable colouring agents for syrups, such as syrup glycerophosph. co., and other galenicals is needed.

Cinchona, Liquid Extract of.—The B.P. process does not fully extract the total alkaloids from cinchona bark. An improved process is required, and experiments are needed to ascertain the best solvent for the purpose (see *Y.B.*, 1917, 387).

Deterioration.—Some drugs, chemicals, and preparations are subject to deterioration upon storage. An investigation should be undertaken with the view to recording the extent to which such articles can be kept in a pharmacy in normal conditions and for a reasonable length of time and yet comply with the B.P. requirements (e.g., magnesia, ammonium carbonate).

Drugs.—The following drugs require further systematic chemical investigation: *Adonis vernalis* and *Adonis æstivalis* (see *Gen. Index* and *Y.B.*, 1913, 132, 295; 1916, 3; 1918, 277), *Cereus (Cactus) grandiflorus* (see *Gen. Index* and *Y.B.*, 1910, 209; 1911, 240; 1916, 287), *Cassia fistula*, *Serenoa serrulata* (see *Gen. Index* and *Y.B.*, 1917, 160, 344), *Arnica montana* (see *Gen. Index* and *Y.B.*, 1904, 27), *Monsonia ovata*, *Monsonia biflora* (see *Gen. Index*), *Thuja occidentalis* (see *Gen. Index* and *Y.B.*, 1911, 117; 1914, 45, 367), *Tanacetum vulgare* (see *Gen. Index* and *Y.B.*, 1910, 173), *Senecio Jacobea* (see *Gen. Index* and *Y.B.*, 1912, 279; 1916, 226; 1918, 238), *Achillea millefolium* (see *Gen. Index* and *Y.B.*, 1908, 5; 1918, 62), *Aletris farinosa* (see *Gen. Index* and *Y.B.*, 1911, 220; 1915, 225; 1918, 228), *Rhamnus purshianus* (see *Gen. Index* and *Y.B.*, 1916, 204, 270; 1917, 206, 208, 212; 1918, 190), *Polygala Senega* (see *Gen. Index* and *Y.B.*, 1906, 217; 1909, 123; 1916, 381), *Tussilago farfara*, *Chondrodendron tomentosum* (see *Gen. Index* and *Y.B.*, 1907, 120; 1912, 32; 1913, 27; 1916, 367; 1918, 231).

Ergot.—A reinvestigation of the pharmacy of this drug in the light of recent chemical work is required, and a method of determining the activity of the galenical preparations (see *Gen. Index* and *Y.B.*, 1914, 8; 1915, 234; 1918, 154, 286).

Ferments.—The action of ferments in inducing changes in galenical preparations might be studied.

Formulae.—Improved formulæ are required for the administration of nauseous drugs.

Galenicals.—Investigation is required of the changes in the strength of galenicals, etc., during preparation and on keeping, which may render the original formula an unfair criterion of the finished product, e.g., loss of ammonia in filtering tinct. quinae ammoniata; loss of formaldehyde from the tablets; loss of iodine in making syrup. ferri iodidi.

Galenicals.—The B.P. 1914 has introduced in a few cases tests for galenical preparations (e.g., acetum scillæ). An investigation is needed with a view to ascertaining how far the specific gravity and other physical constants may be considered to be a fair criterion that a galenical has been made in accordance with the B.P. directions.

Hydrargyrum cum Creta.—The conditions (if any) under which the volatilisation of mercury from wrapped powders of hydrarg. cum creta is liable to take place.

Iron, determination of.—A quick method is wanted for the determination of iron in syrup. ferri phosph., syrup. ferri phosph. co., syrup. ferri phosph. cum quinin. et strych., and syrup. hypophosph. co. (see *Y.B.*, 1914, 393).

Jalap, Brazilian.—A microscopical investigation of this root is required, with the object of enabling the admixture of it with powdered jalap to be detected. A test is also required for detecting the addition of its resin to true jalap resin (see *Y.B.*, 1916, 255; 1919, 217).

Morphine.—Can the process described in *Y.B.*, 1907, 107, for the determination of morphine be applied to opium and its preparations?

Oil of Soya Bean.—Can this be utilised more widely in pharmacy? (see *Y.B.*, 1910, 104; 1912, 120).

Opium, extract of.—To what is the loss of morphine due in making this extract? Is it constant with different lots of opium? (see *Y.B.*, 1910, 28; 1913, 359, 360; 1914, 17; 1917, 11).

Opium extract, assay of.—The B.P. process for the estimation of morphine in extract. opii sicc. B.P., 1914, which may contain calcium phosphate, is not very satisfactory. An improved process would be useful.

Phenol, liquefied.—The pharmacy of this substance requires further investigation (see *Gen. Index* and *Y.B.*, 1910, 233; 1917, 263).

Pills.—A systematic examination is required to determine the time necessary for the solution or disintegration of pills prepared with different excipients and kept for various periods (see *Y.B.*, 1918, 314).

Quillaia bark.—Experiments are desirable to determine the best solvent for exhausting this bark for the purpose of making emulsifying agents, and a comparison of the official bark with the thin bark met with in commerce (see *Gen. Index* and *Y.B.*, 1907, 107; 1910, 209; 1916, 369).

Santonin.—Analyses are required showing the percentage of santonin in Colonial and Indian species of *Artemisia* allied to *Artemisia maritima* (see *Gen. Index* and *Y.B.*, 1913, 293, 294; 1914, 138, 139).

Saponins.—A simple and accurate method of determining saponins in drugs is required (see *Gen. Index* and *Y.B.*, 1904, 78, 87; 1906, 71; 1909, 5, 71, 80; 1910, 115; 1911, 117, 124, 126; 1912, 131; 1913, 142, 145, 146, 147; 1914, 99; 1915, 115; 1916, 152; 1917, 90, 91).

Solvents.—Experiments are needed with a view to extending the use of solvents such as acetone, carbon tetrachloride, dichlorethylene, petroleum ether, amyl acetate, etc., in pharmacy (see *Y.B.*, 1919, 278).

Strophanthus.—An examination of the published methods of separating the different active principles obtained from the official seeds is needed with a view to recommending a standard process. The seeds in commerce are frequently mixed. Further information is required as to the active principles they severally contain (see *Gen. Index* and *Y.B.*, 1904, 244; 1905, 202, 370; 1906, 74, 110, 249; 1910, 220; 1911, 125; 1912, 131, 280, 337; 1913, 134, 147; 1915, 107; 1917, 284; 1919, 226, 228, 344). (Already undertaken.)

Tannin.—A ready and tolerably accurate method for the determination of the tannin in various astringent drugs is required (see *Gen. Index* and *Y.B.*, 1906, 86; 1907, 158; 1912, 312, 314; 1913, 122, 187, 214; 1916, 208).

Taraxacum root.—The investigation of fresh drugs such as this by Bourquelot's method for the detection and isolation of easily hydrolysed glucosides is required (see *Y.B.*, 1907, 58; 1914, 319).

Tinctures.—Experiments are needed to determine the best method for the prevention of the occasional gelatinisation of tinctures, with special reference to tinct. card. co. P.B. 1914.

Valerian root.—Chemical investigation of the fresh root by Bourquelot's method is required (see *Y.B.*, 1907, 58; 1914, 319).

Marriages.

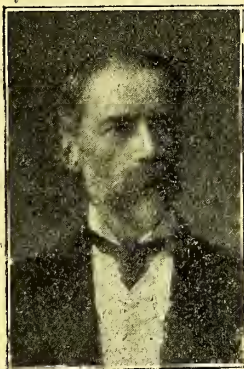
ARMSTRONG—BOARDMAN.—At Adelaide Road Presbyterian Church, Ranelagh, co. Dublin, on December 10, 1919, by the Rev. R. K. Hanna, Frederick Palmer Armstrong, M.P.S.I., fourth son of Mr. Thomas Armstrong, Manorhamilton, co. Leitrim, to Mildred J., eldest daughter of Mr. J. H. Boardman, L.P.S.I., 68 Upper Beechwood Avenue, Ranelagh.

ROPER—BURRIDGE.—At the Parish Church, Chippenham, on December 22, 1919, by the Vicar (the Rev. J. L. Parsons), Captain Robert Langdon Roper, R.A.S.C., British Army of the Rhine, eldest son of Mr. R. F. Roper, Ph.C., 34 Tavistock Road, Plymouth, to Susan Frances, second daughter of Mr. W. M. Burridge, Chippenham, Wiltshire.

Deaths.

DAVIES.—At Oldham Infirmary, on January 2, as the result of a fall, Mr. William Davies, assistant with Brad-dock & Bagshaw, Ltd., chemists, Yorkshire Street, Oldham, aged fifty-nine.

FRASER.—At 13 Drumsheugh Gardens, Edinburgh, on January 4, Sir Thomas Richard Fraser, M.D., LL.D., F.R.S., Emeritus Professor of Materia Medica in the University of Edinburgh, aged seventy-eight. Sir Thomas Fraser's long connection with Edinburgh began in 1862, when he graduated in medicine. In 1870 he was appointed a lecturer in materia medica, and in 1877 he succeeded the late Sir Robert Christison as professor of materia medica in the University—a post that he held until 1918. Among his many other distinctions may be mentioned the presidency of the Royal College of Physicians of Edinburgh, and the membership of the medical committee responsible for the compilation of the British Pharmacopoeia, 1914; but it is rather on original research that his title to fame rests. One of the most valuable pieces of work with which his name is identified is the physiological action of strophanthus; and of perhaps equal importance were his investigations into the therapeutics of physostigmine. Sir Thomas's work was widely studied and brought him into great prominence, for it was recognised that an advance of value had been made. Several years were spent by him, partly in association with others, in the study of the poison of snake-bite; and in 1898 he went to India as a member of a commission for investigating plague. Some years ago he had the misfortune to break a leg; and it was only his sense of duty and his indomitable spirit that enabled him to remain at his post in Edinburgh till 1918. He was knighted in 1902. Since 1887 he had been an honorary member of the Pharmaceutical Society of Great Britain.



SIR THOMAS FRASER.

ROPER.—At a nursing home, on December 28, 1919, William George, only son of Mr. F. A. Roper, Ph.C., 93 Mount Gold Road, Plymouth, aged seventeen.

SMITH.—At Greenwich, on December 27, 1919, Mr. Percy Dolph Smith, chemist and druggist, 101 Manor Lane, Lee, London, S.E. 12, aged fifty (see p. 46).

WRIGHT.—At East Wonford House, Heavitree, Exeter, on December 15, 1919, Mr. Joseph Newton Wright, chemist and druggist, aged sixty-four. Mr. Wright was for several years in business at 111 High Street, Ilford, where he succeeded Mr. E. J. Beal, J.P. He disposed of his pharmacy last summer (*C. & D.*, 1919, p. 703).

Personalities.

MR. E. A. HODGE, of W. N. Cooper, Kimberley, is returning this week to South Africa by the mail steamer from Southampton. Mr. Hodge has been on a long visit to this country.

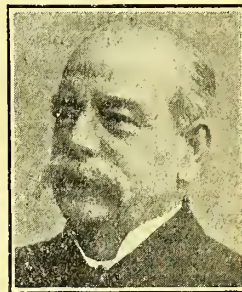
MR. GEORGE O. CREED has joined the staff of Thomas Swales, druggists' sundriesman, Leeds, and will represent the firm on the Lancashire and Yorkshire ground. Prior to joining the Army in 1916, Mr. Creed had sixteen years' London experience in the sundries trade.

WE REFERRED last week (p. 78) to the presentation to Mr. Alfred Mills, the senior representative of Evans Sons Lescher & Webb, Ltd., and are now able to give his portrait. Mr. Mills has been in the service of the company and its predecessors for forty-seven and a-half years. He is now retiring.

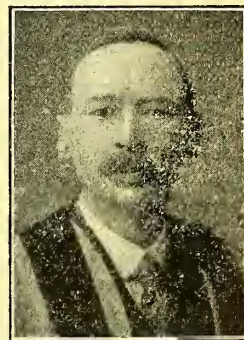
MR. M. W. CHAMBERS, chemist and druggist, Nottingham, whose article on "Pharmacy in Denmark" (*C. & D.*, 1919, p. 1515) has lately thrown light on the question of retail prices, is standing as a candidate for the Forest Ward of the Nottingham City Council. Mr. Chambers has identified himself with the Labour Party. His opponent is Dr. Jacob, a well-known local consultant.

MR. R. S. PATERSON has been appointed representative of British Colloids, Ltd., in the Liverpool and Manchester district, and Mr. J. Macvie Hill as East Coast representative for the same company. Both have been for many years with Burroughs Wellcome & Co., and Mr. Hill received a presentation from the Ipswich Chemists' Association when he joined the Forces.

SIR LEONARD BROMFIELD ROWLAND, chemist and druggist, Wrexham, the announcement of whose knighthood was briefly made in our last issue (p. 70), is the second son of the late Mr. William Rowland, chemist, and was born in the street in which his pharmacy is situated. The business was established in 1810 by Mr. Edward Rowland, Sir Leonard's grandfather, and has thus been in the possession of the family for upwards of a century. Sir Leonard qualified in 1886, and took over the business in 1891. After considerable experience as a town councillor, he was elected Mayor of Wrexham in 1915, and retained the office for four years. The pages of *THE CHEMIST AND DRUGGIST* have borne frequent witness during that time, to his activities as a public man. His father, it is interesting to note, was Mayor of the borough in 1869.



MR. A. MILLS.



SIR LEONARD ROWLAND.

Wills.

MR. PETER SIMPSON, chemist and druggist, 105 Denton Street, Carlisle, who died on July 13, left estate valued at 2,099*l.* 15*s.* 1*d.* gross, with net personalty 252*l.* 6*s.* 8*d.*

MR. JAMES KENYON GREGSON, chemist and druggist, 54 Compton Place, Blackburn, who died on September 29, left estate valued at 673*l.* 18*s.* gross, with net personalty 644*l.* 1*s.*

Trade Notes.

GERMOLENE and GERMOLIS are two new products brought out by the Veno Drug Co., Ltd., manufacturing chemists, Manchester. Particulars as to prices and window-shows are given in the company's advertisement.

ANTIPHLOGISTINE.—The Denver Manufacturing Co. have appointed Mr. J. F. Murray, 41 St. Anne's Road, London, E. 3, sole British agent for Antiphlogistine. The prices of this proprietary are protected under the scheme of the Proprietary Articles Trade Association.

NEAVE'S FOODS.—Josiah R. Neave & Co., Fording-bridge, enumerate the wholesale and retail prices of the three Neave's foods which the firm manufacture. The cereal food has been sold for nearly a century, but is now supplemented by two other foods to meet special dietary requirements.

AROMATIC CHEMICALS.—Gerald Bromage & Co., 9-10 Foster Lane, London, E.C. 2, sole agents for N.V. Chemische Fabriek "Naarden," Bussum, Holland, quote in their advertisement some of the chief aromatic chemicals which are on offer. Perfume and soapmakers should note this announcement.

SPENCE'S SOOTHERS.—Mr. H. B. Spence, 44 Thorne Road, South Lambeth, London, S.W. 8, specialises in baby-soothers, and offers to send complete sets of samples or a selection of the seventy-one varieties for 1/6, 7s. 6d., or 10s. Representatives also call upon chemists by request in the London district.

FRENCH PERFUMERY.—Mr. René Paindessous, 150 Southampton Row, London, W.C. 1, is general representative for the United Kingdom (wholesale only) for the Parfumerie Française de Grand Luxe Picant, Paris. Some of the Picant specialities are mentioned in Mr. Paindessous's advertisement in this issue.

RAILWAY CONGESTION.—An advertisement in this issue urges traders to assist in relieving the railway congestion by quickly unloading and returning railway wagons which bring goods to factories and chemical works. This is one way in which the congestion can be relieved and the trade of the country helped to catch up arrears.

CHRISTOPHER THOMAS & BROS., LTD., Bristol, have sent us a copy of the "Reindeer Glycerine" calendar, which, like the handsome beast that occupies the place of honour upon it, is a fine specimen. It measures 22 in. by 15½ in., and the tear-off portion (one day to a leaf) is 7 in. square. The colouring of the landscape behind the reindeer is cleverly done, and figures are bold enough to be seen across a shop or office.

IGLODINE.—The Iglodine Co., Ltd., Manor Chase Works, Newcastle-upon-Tyne, have been informed by the Board of Customs and Excise that iglodine comes within the definition of an entire drug under the Medicine Stamp Acts, and is, therefore, sold unstamped. Preparations of iglodine have further been made into "known, admitted, and approved" remedies by inclusion of the formulas in THE CHEMIST AND DRUGGIST DIARY, 1920.

BRITISH ANILINE DYES.—The advertisement in this issue of the British Dyestuffs Corporation, Ltd., offering aniline dyes and fine chemicals, is noticeable, as it indicates the fact that immense developments are taking place in the manufacture of coal-tar products in this country. So many synthetic chemicals used in medicine are produced by the company that these are bound to assume great importance in establishing the industry firmly in England.

CHEMISTS' SUNDRIESMEN.—Two brothers, both ex-lieutenants, Messrs. C. E. and J. A. Williamson, have started business under the name Williamson Brothers, as chemists' sundriesmen, at Corporation Chambers, 54 Lower Thames Street, London, E.C. 3. They have been able to obtain some lines which show excellent value for money. Among these are hair-brushes, which, at a time when bristle is becoming scarcer and scarcer, should be inspected when Messrs. Williamson call upon chemists with samples of their goods.

BATTERY SHOW-CARDS.—Siemens Bros. & Co., Ltd., Woolwich, London, S.E. 18, send us two coloured show-cards which they are supplying as advertisements for dry batteries and refills. Both cards have on them groups of the various dry cells made by Messrs. Siemens, and in addition there are views of the works at Woolwich and part of one of the battery shops. The cards, which measure 17½ in. by 11½ in. and 14½ in. by 10½ in. respectively, are well produced, and will attract attention when placed in the shop or window. They are supplied free of charge.

POPULAR DENTIFRICES.—D. & W. Gibbs, Ltd., Cold Cream Soap Works, London, E. 1, call attention in this issue to the advertisements they are inserting in many of the best known papers, a specimen announcement from the "Daily Mail" being given. We have inspected samples of the dentifrice which is put up as a cream in collapsible tubes, giving a crescent-shaped ribbon, or in tablet form in aluminium boxes. The smaller tablet is in a dull aluminium box, but the larger size is in a polished case, which forms an ornament to the toilet-table, and it is cased in a silvered paper carton. This sells at 1s. 3d., but refills are obtainable, which are sold by the chemist at 10d. each. The dentifrice, packed in this form, is a really attractive line, which should receive the attention of chemists.

ROLLO-FOAM SAFETY-RAZOR.—We have this week inspected one of the Rollo-foam safety-razors, for the sale of which the agents are Lewis, Regnard & Co., 90 Lower Thames Street, London, E.C. 3. The name, which has puzzled some people, is obvious on inspection of the razor, which is provided with a roller-guard on each side of the blade in place of the comb form usually employed. The advantages claimed for the rollers are that the soap is kept on the face during shaving, instead of being removed as the operation proceeds. The rollers are more easily cleaned, and, being non-metallic, wear better than plated metal. It is also claimed that a "closer" shave can be obtained with this form of safety-razor. The Rollo-foam razor, which is entirely British made, is sent out in nickelled box, with twelve blades, and sells, retail, at 21s.

Information Department.

INFORMATION WANTED.

Postal or telephone information with respect to makers or first-hand suppliers of the undermentioned articles will be appreciated.

144/41. "Analgetine."	144/29. "Lactre Oats."
145/45. "Zotos" seasickness remedy.	140/49. "Popular" atomiser.
145/47. "Iodogall."	146/6. "Bactro" urethral syringe.
144/26. "Aladdin" dye-soap.	146/41. Oleo resin pichi
144/30. "Alfaction."	(<i>Fabiana imbricata</i>), supplies.

INFORMATION SUPPLIED.

Inquiries regarding the following articles have been answered. The information as to supply will be given to others who send a stamped, addressed envelope to the Information Department, THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C. 4:

Albulactin, 140/48	Luminous paint, 119/52
Andrew's, Dr., asthma remedy, 145/43	Lydia Pinkham's compound, 144/66
Argulan, 133/73	Lymphoid compound, 127/70
"B. & G." brand olive oil, 133/5	Manfred's headache powders, 58/25
Beeman's spearmint chewing-gum, 132/57	Murray's fluid magnesia, 125/1
d'Jerkiss perfumes, 125/69	"Nadco" dyes; British agents, 125/12
De Jongh's cod-liver oil, 141/4	Nuclein, 133/52
"Deuiraale" hair-remover, 138/39	Rigaud's perfumery; agents, 127/36
De Witt's pills, 132/31	Sanolite, 130/20
Digitalin (Mialhe), 137/31	Seasickness remedy, 123/23
Drying apparatus, 133/29	Seeds, 123/74
Earthenware foot-warmers, 136/71	Seneschal corn plane, 115/50
Henri's shampoo powders, 132/31	Smith's potassium compound, 135/45
Hoestine, 58/25	Vanilla sticks (Belgium inquiry), 135/13
Hogg's cod-liver oil, 119/55	"Vena" depilatory, 144/66
Hommel's Hæmatogen, 137/8	"Virol," 136/22
Lactophosphine, 124/68	Welch's grape juice, 141/4
"Lalkala," 129/7	Wicker crates, etc., 129/8
Limpet corn plaister, 127/21	Williams' shaving-sticks, 137/24
Lockyer's hair-restorer, 135/5	Wilkinson's sarsaparilla, 132/23
Lomax's health syrup, 58/25	

Observations and Reflections.

By Xrayser II.

1920

is now several days old, and New Year wishes begin to sound a little belated. I will not indulge in the cheap cynicism of saying that they are at the best futile, but it is true that good wishes have little value except as expressions of goodwill. However sincerely we wish anything, either for ourselves or for others, nobody is much the better for it if we stop at the wishing stage; indeed, mere wishing is rather harmful than otherwise. When Landor says

Wishes are byways to unhappiness,
And in the vale of tears they terminate,

he is thinking of wishes that mislead, but there is another way in which they may do hurt; they are apt to resemble pious opinions that are never acted upon, or faith without works, self-pleasing substitutes for active service, of no good to anybody. We pharmacists have many things to wish for at the opening of this New Year, but mere wishing will bring us no nearer to their attainment. We want a 50 per cent. increase in Insurance dispensing-fees. Then we must will it, determine to have it; we shall not get it by wishing. We want to purge the Pharmaceutical Council next May? Well, we can if we will to do it; but never by just wishing it. There is no particular reason why we should make good resolutions at this rather than at any other time of year, but being by custom more disposed that way just now let us resolve to achieve both these purposes and they will be as good as realised. But this is a matter of willing, not of wishing.

The Wages Question

is one of the most disquieting of the difficulties which face us in this new era. It is but another phase of the old assistant question which was causing us some anxiety before the war, but it is even more serious than that was, for assistance of a kind we could afford was usually to be got, though it might not be of the kind we should have chosen, whereas labour of every kind has now become so expensive that when the shortage of men has been made up we shall not be able to avail ourselves of the supply. I suppose that in no trade, productive or distributive, have prices and profits increased so little, and that in none is the possibility of greatly increasing business so small as in ours. We are consequently in this predicament: the general advance in the price of labour bears hardly upon us as upon any traders, and we are the least able of any to bear the burden. There seems to be only one way in which we can possibly bear it, and that is by advancing our prices all round. I doubt whether many chemists even yet realise the absolute necessity of this, unless we are prepared so to restrict our business that virtually we can do without assistants, which means, among other things, giving ground to the gigantic multiple-shop companies, who can utilise labour more economically than the single-shop man. One thing is certain: conditions in the near future will be very different in these respects from what we have been accustomed to, and we shall need all our wits to accommodate ourselves to them.

Mr. Holmes's Article on Manna

will have been read with general interest, and I am glad to think that a note of mine has contributed to call it forth. Mr. Holmes promises further research into the subject, the result of which will, we may hope, be of equal interest; but I am afraid the hope, if anybody entertains it, of discovering a natural product answering in every particular to the biblical account of manna is doomed to disappointment. Mr. Holmes recognises the miraculous element in the narratives of the Hexateuch, but does not seem to make sufficient allowance for their legendary character. The precise dates of these books and of the documents on which they are founded are unknown, but critics are virtually agreed that the oldest of them are very much later than

the events they record, and the fact that they do not at all points agree with one another must be taken into account. It cannot be doubted that the story of the manna has a substratum of fact, but surely we are not required to believe that for forty years manna was the staple food of a vast host like the Israelites. That they found in the desert some edible substance which was new to them and supplied their lack of other vegetable food, perhaps intermittently only (it seems from the account in Numbers to have failed them sometimes), is credible enough, and is sufficient, all things considered, to account for what we actually read.

Scottish Panel Chemists,

though they have not got all they asked, have secured a substantial advance on the terms offered them for the ensuing year, and they have got this so promptly because it was known they would refuse service if it were denied them. This so-called "strike" threat is, we are told, impracticable in England. Possibly it is, for we are much less efficiently organised than the Scots, and much more frightened at names. To talk about "striking" in this connection is really absurd; we contract, under great pressure, and for patriotic reasons, to work on inadequate terms for a certain time, with a mutual understanding between ourselves and our employers that a fresh bargain will be necessary when the time expires; the time does expire, and the new terms offered us being unsatisfactory, we refuse to bargain unless our own are accepted; is this a strike? Of course it is not; while freedom of contract is allowed at all we are free to contract or not as we please. This inalienable right of every worker in a free country is his only safeguard and weapon. It may not be good policy to use it in our case, but I confess I do not see why. It has succeeded in Scotland; it succeeds in ninety-nine cases out of every hundred in which it is tried; why not in our case?

"Jay Mack"

is fighting the air—"hot air"—and in so doing is simply wasting his strength. His long letter is a mere display of athletics, magnificent, but not war. I do not even gather what it is that he is fighting: what is "hot air"? It seems to be fearfully pervasive, present everywhere, in the Council, in the Progressive Club—possibly in "Jay Mack" and myself, without our knowing it! It is difficult to fight such an impalpable foe; let us stick to facts. I hope "Jay Mack" knows me better than to suppose that I make an idol of the term "trade union"; I have repeatedly objected to it as not really applicable to the kind of organisation we want, but I found it in the letters on which I was commenting and adopted it "for short." But what are the facts? We need trade protection; the Council confessedly doubts its power to give it us, and meanwhile does not try effectively to do it. Nobody has in the past spoken more strongly on this point than "Jay Mack" himself, and it is a startling transformation to find him playing the part of

"Saul Among the Prophets,"

but let that pass. The Council presumably knows its own limitations better than he, and it is quite certain that, as at present constituted, it will never adopt his policy or ideas, for he shows himself to be still sound at heart in spite of his whimsicalities. The Club may be as unprogressive as he says it is; I hold no brief for it or for any body, but it is at least more open to influence than the Council, some of its members are already forming a nucleus round which the body we want may shape itself, and here, it seems to me, lies our best hope. In any case an independent Association, unhampered by statute, and with the courage of its opinions, we must have; our natural protectors having failed, we must protect ourselves. Perhaps this, too, is "hot air"? If so, all I can say is that I wish the air were hotter; I should like to see it burst into flame and burn up such straw-built defences as the Local Associations Executive and melt down the little tin gods we invoke in vain.

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FLUIDS, POWDERS, SOAPS & FUMIGATORS
Should be stocked by all Chemists.
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JEWSBURY and BROWN'S ORIENTAL TOOTH PASTE in Tubes and Pots.

HARD SOAPS, TRIPLE MILLED TOILET
SOAPS, TRANSPARENT SOAPS, PARAFFIN
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Craven House, Kingsway, LONDON, W.C. 2. Tel.: Gerrard 1774.



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Foreign Prescriptions dispensed for Pharmacists.

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MEMO. NO. 3.

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For over Forty Years have been in daily use by
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FLETCHER, FLETCHER & Co., Ltd., HOLLOWAY, LONDON, N.

Editorial Articles.

The Opium Traffic.

AN interesting and lengthy letter appeared in "The Times" of January 3, on the opium question, by Mrs. Elizabeth Washburne Wright, widow of Dr. Hamilton Wright, who was responsible for drafting the so-called Harrison Bill to control narcotic drugs in the United States. Mrs. Wright indicates, step by step, the advances which have been made to check the abuse of narcotics in her country, and now advocates the urgent necessity of carrying into effect the provisions of the Opium Convention of 1912, and the Special Protocol drawn up at the Third International Opium Conference at The Hague in June 1914. Mrs. Wright explains that the United States Government has already set an example by passing legislation in pursuance of the 1912 Convention, and goes on to say that:

It has been repeatedly demonstrated that international co-operation alone can cope with this subtle evil. America

affords a signal example of the inadequacy of individual action. The United States ratified the Convention and signed the Special Protocol at The Hague in 1915, and at once proceeded to carry out her international obligations by passing a series of Acts dealing with the drug question, both as it affected her nationality and in the zones under her jurisdiction in China. Now that the world has agreed to put the Convention into effect it may be of value to review briefly the legislation passed by the United States in accordance with the terms of The Hague Convention. It was not until the calling of the International Commission in Shanghai that America became aware of the appalling inroads being made by drugs in the United States. Dr. Hamilton Wright, who represented the American Government in this movement until the time of his death, was responsible for the discovery that America was consuming as much drug *per capita* as the Chinese consumed opium. This led at once to the passing of a law prohibiting the introduction of opium and its derivatives into the United States save for medicinal purposes. This was later followed by another Bill, prohibiting the manufacture of smoking opium within the United States. This was drafted on the discovery that it was the intention to thwart the purpose of the Opium Exclusion Act by producing opium in America itself.

The writer then gives details of the series of Acts now in operation in the United States, and the measures that have been taken to meet the situation in China, and after pointing out the need for co-operation, shows that in China to-day the Harrison law is rigidly imposed by every American chemist; but it is perfectly inadequate, she says, unless augmented by similar legislation on the part of Great Britain and France, and other countries in the practice of pharmacy in China, as any drug-addict has but to cross the street and obtain his drug of some other chemist whose country has not passed the restrictive legislation. It is common knowledge that very large and increasing quantities, particularly of morphine and heroin, have been shipped to China *via* Japan, but Mrs. Wright makes no reference whatever to the culpability of Japan in this matter, and throws part of the blame on Great Britain, alleging that large quantities of morphine have been imported from this country to China. But has the United States clean hands? That question is answered in the *C. & D.* of December 13 (p. 74), where some startling revelations were given on the authority of a New York contemporary. Mrs. Wright might read, with profit to herself, verse three, chapter seven, of the Gospel of St. Matthew. The trade is too lucrative for "unscrupulous individuals" (which, by the way, includes firms with a first-class reputation) to give up without a struggle; but, on this side, the British Government has, we understand, adopted a strict attitude and does not give facilities for American buyers to import opium from London, unless they can guarantee it is for legitimate use only, but the guarantee is usually not forthcoming. Mrs. Wright omits any reference to the fact that at Hong Kong and the Treaty Ports legislation was passed ten years ago restricting the sale of morphine or compounds of opium to persons registered under the Pharmacy Ordinance (June 1910), and to registered medical practitioners. Much could be written on the attitude of Japan in this matter. Officially, Japan states that its Government has been doing its utmost to crush the existence of this unlawful trade, and stands wholeheartedly by its engagement as a signatory Power of The Hague Convention. As a corrective we supply the imports of morphine salts into that country from her own official returns. These figures are probably understated and make no allowance for the parcel post or smuggling, and it will be seen that the imports for the first nine months of 1919 already exceed those for 1918, but 1917 was a "bumper" year.

Morphine Hydrochloride and Sulphate.

	1917	1918	1919
	Oz.	Oz.	Oz.
January	62,219	12,666	3,149
February	60,705	17,249	15,166
March	45,797	9,636	16,266
April	2,089	12,322	4,247
May	69,197	26,933	9,407
June	64,521	13,299	24,667
July	50,731	18,467	37,790
August	65,368	11,174	56,717
September	88,215	10,060	60,031
October	26,195	6,814	—
November	16,397	7,505	—
December	26,174	17,242	—
	600,229	165,087	227,440 (9 months)

Mrs. Wright magnifies China's efforts to suppress opium cultivation, and demonstrates the sincerity of that country in its attempts to do so, but it is to be regretted these efforts have not succeeded. Sir John Jordan, the British Minister at Peking, than whom there is no better authority on the Chinese opium question, declared, at the Federation of Chambers of Commerce at Shanghai on November 8, 1919, that the cultivation of opium was rife in nearly every province, and quoted the saying of the enlightened Governor, Yen Hsi-shan of Shansi, that most of his revenue went to keeping out smuggled opium from Shansi. The position in China now is that owing to her impotency she has not been able to carry out her agreement under the Treaty made with her in 1911. Sir W. J. Collins, one of the British delegates to the second Opium Convention, in a letter to "The Times" (January 5), outlines the provisions of the Peace Treaty as bearing on the execution of the Opium Convention, from which it appears that so far as Great Britain is concerned a Bill has been drafted and will be introduced early next session to amend our pharmacy laws in the manner prescribed by the Opium Convention. We have previously given the two Articles of the Convention dealing with this matter, but their exceedingly drastic terms will bear repetition. Thus Article 9 recites that:

The contracting Powers will enact pharmacy laws and regulations, so as to limit the manufacture, sale, and use of morphine, cocaine, and their respective salts to medical and legitimate uses only, unless such laws already exist. They will co-operate amongst themselves in order to prevent the use of these drugs for any other purpose.

And Article 14 provides that:

The contracting Powers will apply the laws and regulations for the manufacture, import, sale, or export of morphine, cocaine, and their respective salts; to (a) medicinal opium; (b) to all preparations (official and non-official, including the so-called anti-opium remedies) containing more than 0.2 per cent. of morphine or more than 0.1 per cent. of cocaine; (c) to heroin, its salts and preparations, containing more than 0.1 per cent. of heroin; (d) to every new derivative of morphine, cocaine, or their respective salts, or to any other alkaloid of opium which, as the result of scientific research, shall be generally recognised as giving rise to analogous abuse or as producing the same injurious effects.

This legislation is, *inter alia*, entrusted to the League of Nations, and applies to all those Powers which are parties to the Peace Treaty, whether or no they ratified or signed the Opium Convention. If at the close of the year the League of Nations—the greatest ideal in the world—has effectively accomplished this piece of legislation, it will have justified its existence on this ground alone.

Indian Industries.

THE Indian Industrial Commission which has been in existence for several years past now appears to have concluded its labours, as a summary of its work has been issued in India, and the official report has also been published in the United Kingdom. From time to time we have published evidence given before the Commission so far as regards the chemical and drug trades, but in the summary now issued in the "Indian Trade Journal" we find no reference to any proposals to deal with these industries. A big programme has been mapped out as to what is to be done to put India on a better industrial footing. Firstly, it is proposed that in future the Indian Government must play an active part in the industrial development of the country, with the aim of making India more self-contained in respect of men and material, and secondly, that it is impossible for the Government to undertake that part, unless provided with adequate administrative equipment and trustworthy scientific and technical advice. This, of course, means the creation of a new horde of officials and departments, the recurring cost of which is estimated at 86 lakhs of rupees, (575,276/.) and a further capital outlay of 66 lakhs of rupees (439,956/.) is anticipated for future developments. Without entering into full details regarding the administrative proposals it may be said briefly that it is proposed to create imperial and provincial departments of Industries and an Imperial Industrial Service. The imperial department is to be in charge of a member of the Viceroy's Executive Council, assisted by a board of three members entitled the Indian Industries Board, and be responsible for the industrial policy of the Government and the inauguration and carrying out of a uniform programme of industrial development throughout the country. The actual administrative work is to be almost entirely decentralised and would devolve on Local Governments. There will be plenty of work for the new organisation, as although India has great potentialities the bulk of the Indian population is engrossed in agriculture, from which it gets a bare living owing to the antiquated methods of cultivation. It is proposed to "industrialise" the *ryot* by giving him better education, housing, and wages, and so attract him to industrial pursuits. Proposals are made for the better exploitation of the forests and fisheries, the coal-mines, the harnessing of water-power and so on. India is and has been industrially deficient, only those industries being taken up which appeared to offer safe and easy profits. Prior to the war, too ready reliance was placed on imports from overseas, and this habit appears to have been fostered by the Government practice of purchasing the bulk of its stores in England. India has no lack of money, but its capitalists are shy in putting it in industrial concerns except on exorbitant terms, so that the extension of banking facilities is badly wanted, and means are to be taken to secure them. To sum up, the Commission finds that India is a country rich in raw materials and in industrial possibilities, but poor in manufacturing accomplishment. "The deficiencies in her industrial system," says the report, "are such as to render her liable to foreign penetration in time of peace and to serious danger in time of war." It is to be hoped that this danger of "foreign penetration" is now over, and we believe the British Empire is now quite alive to the necessity of securing the economic safety of India.

Claiming Spirit Rebate

REFERRING to the article under this title printed in THE CHEMIST AND DRUGGIST, January 3, p. 76, will subscribers please note that on the twenty-eighth line from the bottom of the first column the percentage or degrees over-proof of absolute alcohol should read 75.35, not as printed? We are having reprints made of the Proof Spirit Conversion Tables which were given in THE CHEMIST AND DRUGGIST, December 27, 1919, pp. 75-78. These will be in pamphlet form, and on stout paper. The prices of the reprints will be announced later.

The New Insurance Dispensing Terms.

THE dominant fact that emerges from the official report of the Conference of Local Associations delegates, held in London on December 6 (p. 63), is that there is no finality in the terms agreed to on behalf of panel pharmacists. It might, indeed, be not unfairly suggested that the more than official courtesy with which the deputation from the Conference was received by the Minister of Health was a tacit recognition that the case for the better remuneration of the pharmacists is even stronger than it was represented to be by their official spokesmen. The effect of the negotiations, we are given to understand, is that, where 6*a*. was asked for, 5*4d*. has been conceded, together with a minimum ingredient price of 0*1d*. Reading between the lines of the official report referred to, and steering as clear as we can of the backwash of its euphemisms, we gather that Dr. Addison's attitude to the deputation was distinctly friendly. It is a salutary maxim that there is no friendship in business. The next step is to have the terms worked out in detail. One of the most important aspects of the situation is that indicated by us on November 8 (C. & D., 1919, p. 1279). Dealing with the suggested 50 per cent. increase—now whittled down, it appears, to an increase of about 35 per cent.—we wrote: "This is probably considered *quid pro quo* for the imposition of further conditions upon chemists, but our opinion is that the amount of the proposed increase is not sufficient to compensate chemists for the imposition of the compulsory rota." Since those words were written, two events have taken place that render them more significant. One is the publication of Mr. Netherway's paper (C. & D., 1919, p. 1436), the figures in which, revealing the high cost of conducting a dispensing service, have not been seriously challenged; the other is the statement of the Minister of Health that the whole question of Government medical service is under consideration by his department. We are not forgetting that the question of terms may be reopened at the conference of Local Associations delegates to be held in June; but, if any such reopening is to strengthen the position of pharmacy, panel pharmacists must promptly make up their minds what they mean to do.

Erroneous Quinine Statements.

A PROPOS of the absurd statements which have appeared from time to time in the daily newspapers, as well as those which have been given utterance to by public speakers on the subject of quinine supplies, the following extract from the "Daily Express" of January 1 may be quoted as an example:

Quinine Scarcity.

The price of quinine has again risen considerably owing to the extremely low stocks available, while prospects in regard to future supplies from Dutch sources still leave much to be desired. Home manufacturers find great difficulty in satisfying their clients' needs, and the dealer possessed of small lots is able to dispose of these at fancy prices. These range from about 5*s*. 3*d*. per oz. and upward, which is almost as much as the extreme terms realised within the war period.

In the first place the position of stocks in the United Kingdom (which, if anything, especially when compared with those existing in other countries, are on the plentiful side) has nothing whatsoever to do with the recent rise in the price of quinine sulphate. This, as already pointed out in THE CHEMIST AND DRUGGIST a fortnight ago, is solely due to the adverse conditions of the exchange, which rendered the step taken by the Amsterdam authorities inevitable. Even now the price charged does not adequately compensate the Dutch for the difference in values caused by the present rate of exchange. Furthermore, to say that "prospects in regard to future supplies from Dutch sources still leave much to be desired" is a most unwarrantable statement in view of the facts of the case. Shipments of quinine sulphate are forthcoming to the United Kingdom at regular intervals and in such large quantities as to assure a plentiful supply.

Pharmaceutical Society of Great Britain.

Local Association Delegates' Conference.

THE following is an official report of the Conference of Local Association delegates held at the Hearts of Oak Friendly Society's Conference Hall, Euston Road, London, N.W., on the morning of December 6:

The President was supported on the platform by the Vice-President (Mr. P. F. Rowsell), the treasurer (Mr. F. E. Bilson), Mr. J. W. Deakin (chairman, L.A.E.), Sir William Glyn-Jones (secretary), Mr. G. A. Mallinson (assistant secretary), Mr. J. P. Gilmour (editor, "Pharmaceutical Journal"); the following members of the Council: Messrs. Campkin, Cuff, Hagon, Hines, Jenkin, Keall, Melhuish, Parry, Rowsell, Sargeant, Skinner, White, Wolff, and Rymer Young; and the following members of the Executive Committee: Messrs. French, Hawkins, Hardy, Jackson, Lloyd, Pegg, Ridyard, Roberts, Waring, and Young.

The President, having cordially wished the meeting the compliments of the season and briefly explained the reasons which had made the calling of the Conference necessary, submitted the standing orders for confirmation, with the exception of Article 1. These were adopted. Mr. J. W. Deakin, chairman of the L.A.E., then addressed the Conference, summarising the principal facts as to the action taken by the L.A.E. in negotiating with the Ministry of Health as to the demand formulated by the Conference in April 1919 for an increase of 50 per cent. in 1920 on the rate of remuneration received in 1919. He explained that the Conference had been called because so far the Ministry of Health, while prepared to make a substantial concession, had not acceded to the full demand of the Conference. A long and animated discussion followed on the various aspects of the case, in the course of which Mr. G. A. Mallinson read a report of returns which had been received from local pharmaceutical committees in response to a *questionnaire* as to the action to be taken in the event of the failure of the negotiations with the Ministry of Health; and Sir William Glyn-Jones addressed the Conference on the nature and significance of the issues involved in the existing situation. Thereafter a resolution that full powers to negotiate terms be given to the deputation was defeated by an overwhelming majority. A resolution was then unanimously passed that the deputation about to be appointed to wait on the Ministry of Health that afternoon be instructed to insist on an advance of 50 per cent. for 1920 on the rates of remuneration which had obtained in 1919, the deputation to report the result of the meeting with the Ministry when the Conference reassembled at 5.30 p.m.

The deputation was appointed as follows: From the Executive—Messrs. J. W. Deakin, Leo Joseph, J. H. Nidd, and P. F. Rowsell. From the Conference—Messrs. F. W. Bates, S. F. Body, J. Humphrey, and H. Wolff. The deputation also included: The President of the Society (Mr. W. L. Currie), Mr. E. W. Pollard, Mr. E. S. Waring (representing the company chemists); and it was accompanied by Sir William Glyn-Jones and Mr. G. A. Mallinson.

EVENING SESSION.

The delegates had reassembled in full strength when the President again took the chair. The chairman called upon Sir William Glyn-Jones to report the result of the meeting with the Ministry of Health.

Sir William said that the deputation had been received in the most courteous, sympathetic, and conciliatory manner by Dr. Addison and the officials of the Ministry—by Dr. Addison in particular. Having expressed the warmest appreciation of the indebtedness of the Government and the insured public to panel pharmacists for the good will, efficiency, and loyalty with which they had throughout maintained the pharmaceutical service, Dr. Addison intimated that, having regard to the present

unsettled state of affairs in connection with public health services, it was impossible to make anything like a stable or permanent arrangement as to payment of pharmaceutical or other public health services, but the Ministry were prepared to make the following offer of terms for pharmacy service in 1920: (1) To continue the allowance made during the war, amounting in the aggregate to 1.2d. per prescription, while the cost of living remained at its present high level, and in addition (2) to grant a more permanent increase by adding 50 per cent. to each item in the scale of dispensing-fees set out in Part III. of the report of the Departmental Committee on the Drug Tariff; (3) the pricing of prescriptions to be in future to the first decimal place. This gives a minimum ingredient value of 0.1d. Sir William added that, while the deputation had no desire to anticipate the decision of the Conference as to this offer, they had, as the result of a meeting which they had just held to consider it, decided to recommend the Conference to accept the offer, not as a full or satisfactory but as a provisional settlement of their claim, with the reservation that panel chemists would, if necessary, reopen in June 1920 a claim for higher remuneration.

Mr. J. Humphrey said the effect of the terms offered would mean an addition of 35 per cent. in the payments for the Middlesex area this year, and remarked that in all his experience of Government departments this was the first occasion on which he had found the atmosphere reasonable and friendly. He had no hesitation in recommending the acceptance of the offer. After a number of questions had been put and answered by Mr. Mallinson as to details of the incidence of the increase, he read to the meeting a tabulated comparison of the 1916 dispensing-fees and the same scale as augmented by the new terms offered. Mr. Deakin, while expressing disappointment that the Ministry of Health had not conceded the full demand, reminded the Conference that the arrangement was a temporary one, subject, if they so chose, to early revision. The present method of bargaining and higgling was a very crude and undignified one, and in the process of reconstruction some better way must be devised of adjusting terms of service. Undoubtedly the wisest and most public-spirited course in the meantime would be to accept the offer. Messrs. S. F. Body, A. S. Campkin, Leo Joseph, and H. Wolff all spoke in favour of acceptance of the terms offered by the Ministry of Health. The following resolution was passed by a large majority:

That the Conference regrets the inability of the Minister of Health to grant the increase asked by the Conference, but in view of the friendly reception given to the representatives of the Conference by the Minister of Health, and his assurance that the terms he was now offering were not submitted as necessarily final, the Conference recommends pharmacists to accept the offer on the understanding that they be at liberty to reopen the case for the raising of the terms in June 1920.

The following resolution was also passed unanimously:

That the Conference regrets the use of arguments by the Pharmaceutical Standing Committee (Scotland) based upon comparisons applicable in England and Wales and Scotland respectively, and especially regrets the statements contained in their circulars giving an entirely erroneous impression of the character of dispensing in England and Wales, and also making false statements as to the values of the remuneration now received by panel pharmacists in England and Wales.

A discussion followed on the Medical Benefit Regulations, with special reference to the proposals as to rota schemes for pharmaceutical service, and also to the difficulties arising in connection with the revision of the Regulations applicable to rural areas. Mr. Mallinson announced that a small deputation from the L.A.E. was to meet the officials of the Ministry of Health the following morning for the purpose of discussing the points in question, and the Conference requested the deputation to put forward the views expressed by the delegates. A vote of thanks was passed by acclamation to the L.A.E. for its services in carrying through the negotiations with the Ministry of Health, and also to the chairman for his conduct in the chair.

The following is the list of delegates:

Bath: W. J. Hallett.
Bedford: F. Perkins.
Bedfordshire: W. White.
Berkshire: H. R. Metcalfe.
Birkenhead: W. A. Wynne.
Birmingham: W. H. Whittock and H. Buckingham.
Blackburn: R. Lord Gifford.
Bournemouth: A. J. Worth.
Bradford: F. E. Burdett and D. S. Priestley.
Brexonshire: F. L. Stanton.
Brighton: E. A. Jones.
Bristol: A. Ball and F. H. Blissett.
Buckinghamshire: F. J. James and A. G. Wright.
Burton-on-Trent: W. Lean.
Bury: R. W. Taylor.
Cambridgeshire: A. S. Campkin.
Cardiff: A. S. Johnson.
Canterbury: J. W. Harris.
Carlisle: T. M. Ridley.
Carmarthenshire: J. Walters and J. R. Henderson.
Carnarvonshire: W. A. Roberts.
Cheshire: J. Cumming, H. W. Wallis, W. H. Watkinson, and F. W. Scanlon.
Chester: J. H. Hopley.
Cornwall: W. T. Hall.
Cumberland: T. W. Townley and T. Hardy.
Denbighshire: J. W. Adamson.
Derbyshire: H. G. Toy, C. H. Twelves, and F. J. Hitchcock.
Derby: S. Taylor.
Devonshire: D. A. Evans and T. F. March.
Dorsetshire: P. C. Cartledge and J. A. Haynes.
Dudley: P. G. Richardson.
Durham County: A. Harburn, W. Foster, and G. A. Brown.
Eastbourne: D. Marchant.
Essex: T. England, A. N. Catto, E. N. Lloyd, and S. G. Tydeman.
Exeter: E. Lemmon.
Gateshead: J. F. Simpson.
Glamorganshire: A. Griffiths, W. J. Allen, and G. I. Williams.
Great Yarmouth: P. R. Hill.
Grimsby: J. A. Moore.
Halifax: P. W. Swire.
Hampshire: E. H. Smith and F. B. Wride.
Hastings: H. C. Edwards.
Hertfordshire: F. W. Cannon and S. T. Milbank.
Hull: A. Richardson and W. G. Bennett.
Ipswich: C. Smalley.
Isle of Wight: E. W. Polard.
Kent: A. F. Corfe, A. E. Hobbs, E. W. Ewell, and D. T. Evans.
Lancashire: W. I. Scholes, J. H. Taylor, A. L. Crabtree, and J. S. Snell.
Leeds: L. N. Armitage and E. E. Haslegrave.
Leicestershire: C. J. Avery and W. T. Hind.
Leicester: E. B. Ward and A. E. Young.
Liverpool: J. L. Hirst, D. H. Evans, and L. M. Parry.

Lincs Lindsay: H. C. Lee.
Lincoln: J. Hague.
London: A. J. Wing, J. Humphrey, A. R. Melhuish, G. B. Barnard, A. R. Keith, J. Hearle, H. S. Watson, C. W. Matthews, E. A. Atkins, J. Milner, G. A. Tocher, and W. B. Trick.
Manchester: J. Cleworth, A. Hershberg, and F. W. Bates.
Merionethshire: D. Jones.
Merthyr Tydfil: V. A. Wills.
Middlesbrough: A. Enock.
Middlesex: C. W. Andrew, G. F. Corral, A. W. Hall, T. Marns, G. Weiss, and H. Wolff.
Monmouth: B. Thomas and T. H. Pritchard.
Newcastle-on-Tyne: R. Wright and A. D. Hunter.
Newport, Mon.: B. Harries.
Norfolk: R. M. Ling and F. T. Alpe.
Northampton: H. Rolfe.
Northumberland: G. Cormack and G. R. Patterson.
Norwich: P. Robinson.
Nottinghamshire: A. R. Jesson and R. E. Naylor.
Oldham: F. W. Lomax.
Oxfordshire: W. T. Ransom.
Oxford: H. C. Goodall.
Pembrokeshire: P. Davies.
Plymouth: F. A. Spear.
Portsmouth: W. R. Atterbury.
Preston: F. Hindle.
Reading: F. W. Vasey.
Rochdale: J. Kershaw.
Rotherham: F. Bingham.
Salford: E. H. Simmons and G. Kenworthy.
Sheffield: J. T. Appleton and H. Antcliffe.
Shropshire: F. E. Hunt.
Smethwick: H. M. Tranmer.
Skeok-Peterborough: F. Calder.
Somerset: H. R. Hoyles and J. Ricketts.
Southampton: H. Ferryman.
Southend: S. F. Body.
Southport: W. H. Smith.
Staffordshire: T. W. Garland, F. Jacks, C. H. Trotter, and W. F. Fowke.
Stoke-on-Trent: T. Bentley.
Suffolk East: C. Hardy.
Sunderland: E. R. Cherrett.
Surrey: C. P. Chesworth, A. Higgs, and W. H. Fowler.
Sussex, East: E. H. Farr and R. R. E. Perkins.
Sussex West: S. Bastow.
Swansea: H. Richards.
Tynemouth: H. B. Williamson.
Wakefield: J. Judge.
Wallasey: R. G. Govier.
Walsall: H. E. Belsher.
Warrington: J. R. Young.
Warwickshire: I. L. Mundy and J. T. Fleet.
West Ham: W. Potter.
Wiltshire: A. C. Allen.
Wolverhampton: F. J. Gibson.
Worcestershire: A. S. Price and D. G. Pout.
Worcester: A. E. Coverdale.
Yorks (East Riding): J. G. Anderson.
Yorks (North Riding): G.

Whitfield and E. N. Chapman.
Yorks (West Riding): J. H. Hull, A. Mortimer, A. R.

Briggs, J. P. Norwood, W. E. Metcalfe, and H. W. Stiles.
York: F. G. Hines.

Council-meeting.

A meeting of the Council was held at 16 Bloomsbury Square, London, W.C., on the evening of January 7, the President (Mr. W. L. Currie) in the chair. The following is an official report of the proceedings:

PRELIMINARY EXAMINATION EXEMPTION APPLICATIONS.

On the motion of Mr. Edmund White, it was resolved that the decision arrived at at the meeting of Council held on November 5, 1919, in respect to these applications be modified to the following extent:

That the secretary be authorised to accept applications for exemption from ex-Service men received by him on or before the expiration of four months from the date upon which they were demobilised.

CORRESPONDENCE.

The secretary submitted the approval of the Privy Council to the appointment of examiners.

Thompsons, Quarrell & Jones, the solicitors of the Society, wrote, stating that papers had been delivered to Mr. A. Macmorran, K.C., and Mr. H. H. Slesser for advice on the question of the Society's powers and functions, and that they had not been able to obtain the opinion of counsel in time for submission to this meeting, but would obtain it as soon as possible.

EX-SERVICE STUDENTS.

It was resolved that it be referred to the Library Committee, with power to act, to frame a syllabus of studies suitable for ex-Service men to whom grants had been made and who were to commence a nine-months' course in October next, and that the Committee be empowered to arrange for an examination to be held at the respective schools at the commencement of the session upon the preparatory work outlined in the syllabus.

Thursday's Proceedings.

The meeting was resumed on the morning of Thursday, January 8. The President, who again occupied the chair, congratulated the Dean (Professor Greenish) on the honour conferred upon him by the University of Paris. It was agreed that a letter of condolence and sympathy be sent to the relatives of the late Professor Sir Thomas R. Fraser, an honorary member of the Society.

Business Changes.

MR. C. ANDREWS PRATT, chemist and druggist, has acquired, as from January 1, the pharmacy of Mr. Charles Cowles, chemist and druggist, Stratford, London, E. 15, of which he has been the manager for many years past.

MR. W. S. CLARK, proprietor of Clark, Nettleship & Bailey, 43 Belvoir Street, Leicester, announces that the business is being transferred to a private limited company under the title of Clark, Nettleship & Bailey, Ltd.

MR. A. G. WRENCH, chemist and druggist, who for the past nine years has been manager of the Chiswick branch of Boots (Southern), Ltd., has purchased the business of Gray's Drug Stores, Ltd., 55 Lower Addiscombe Road, Croydon.

MR. W. SINGER, essential-oil importer, 7 Clifton Street, Finsbury, London, E.C. 2, announces that the partnership with his brother, Mr. B. L. Singer, has been dissolved, and that he will still continue the business under the old style of L. Singer.

MR. F. ELLIS, chemist and druggist (trading as Gadd & Son), 1 Harleyford Road, London, S.E. 11, and branches, informs us that he has repurchased the business at 164 Wyndham Road, S.E. 5, as from January 1.

MR. ARTHUR UPSON, chemist and druggist, 35 and 37 High Street, Maidenhead, has disposed of his business to Mr. Montague C. Rock, chemist and druggist, King Street, who will transfer it to new premises. Mr. Rock has been joined in partnership by Mr. A. E. Breakspear, chemist and druggist. The optical department of Mr. Upson's business has been transferred to 91 High Street.

Insurance Act Dispensing.

A Record of matters concerning Chemists' interests in the National Health Insurance Acts.

Draft Medical Benefit Regulations, 1920.

SINCE we summarised the principal changes proposed in the Draft Medical Benefit Regulations, 1920 (*C. & D.*, 1919, p. 1500), a revised statement of amendments has been issued, which necessitates certain alterations or additions to our list. These changes are indicated by italics in the following table:

MEDICAL LIST.

4. (4) . . . The Committee shall also send a copy of the list to the *Panel and Pharmaceutical Committees* and to each person, firm, or body corporate undertaking the supply of drugs or appliances. . . .

LIST OF PERSONS SUPPLYING DRUGS AND APPLIANCES.

8. (3) . . . The Committee shall also send a copy of the list to the *Panel and Pharmaceutical Committees* and to each Insurance practitioner. . . .

INVESTIGATIONS BY PHARMACEUTICAL SERVICE SUB-COMMITTEE.

29. (2) The Sub-Committee shall also investigate any matter relating to the administration of medical benefit or to the discharge, by any person supplying drugs and appliances, of his duties . . . whether such matter has been raised by *or on behalf of* an insured person . . . or not.

SECOND SCHEDULE,

Dealing with the list of appliances.

. . . . *The appliances named . . . have been added, (a) gauze and cotton wool tissue, (b) jaconet, (c) suspensory bandages, cotton, (d) cartolised tow.*

THIRD SCHEDULE,

Dealing with the terms of service for persons supplying drugs or appliances.

ADMISSION TO THE LIST.

1. Every person, other than one who is disqualified from undertaking service by reason of his name having been excluded or removed *after an inquiry* from any list of persons supplying drugs or appliances in Great Britain or in respect of whom an inquiry . . . is pending, who gives notice to the Committee . . . that he accepts service . . . will have his name included. . . .

NAMES AND QUALIFICATIONS OF DISPENSERS.

8. *A chemist shall, if so required by the Committee, furnish to the Committee a statement of the names and qualifications, if any, of any persons employed by him in dispensing medicines for insured persons.*

The paragraph formerly indicated by "No. 8," and referring to "Drugs, etc., to be supplied without charge," will, in consequence of the addition of this new requirement, be described as paragraph 9.

Inquiry about a Panel Practitioner.

A public inquiry was held on January 2, under Part VI. of the National Health Insurance (Medical Benefit) Regulations (England), 1913, at the Ministry of Health, Whitehall, London, S.W., to investigate a representation made by the Insurance Committee for the County of Middlesex that the continuance of Dr. R. W. Baron, "Nevada," Dunstan Road, Golders Green, London, N.W., upon the panel is prejudicial to the efficiency of the medical service of the insured. The Court of Inquiry consisted of Mr. Andrewes Uthwatt, barrister-at-law, Dr. Arnold Lyndon, and Dr. E. A. Starling. The Middlesex Insurance Committee was represented by Mr. Ahhott, and Mr. Hempson appeared on behalf of Dr. Baron. In the representations it was alleged that the doctor had failed to make adequate arrangements for the treatment of his patients during his absence; that he did not specify precisely in his medical certificates the cause of the incapacity from which an insured person (who had subsequently died) was suffering. The findings of the Court will be promulgated.

Reports from Local Centres.

Denbighshire.—At a meeting of the Denbighshire Insurance Committee held on December 31, Mr. T. J. Roberts, pharmacist, Ruthin, the Ministry of Health representative, called attention to the loss sustained by pharmacists owing to illegible prescriptions and errors

in pricing. This amounted to nearly 1 per cent. on the cost for the period to which a test had been applied. The complaint was sympathetically received by the Committee, and the Clerk was instructed to communicate with both the Pricing Bureau and the practitioners on the matter.

Devon.—A meeting of the Pharmaceutical Committee was held on December 31, Mr. T. F. March presiding. It was resolved to continue to support the Central Checking Bureau. The Insurance terms for 1920 were again under discussion, and it was reported that a tentative agreement had been arrived at between the Insurance Committee and the Panel Committee as to pharmaceutical service in the county area.

Essex.—At the meeting of the Pharmaceutical Committee held on December 30, Mr. Gaze (Higham's Park) was co-opted in place of Mr. Rundle, who has resigned. The 1920 terms were discussed, and Messrs. England, Catto, Lloyd, with the secretary, were appointed delegates to the Local Associations Executive Conference held on January 6. The Checking Bureau Report was received and considered satisfactory.

Hereford.—At a recent meeting of the Insurance Committee it was announced that, owing to the impending withdrawal from the panel of Mr. J. W. T. Morrison, chemist, Tring, there will be no chemist to do the dispensing. It was suggested that the doctor might undertake the work in this case, and it was pointed out that he was unwilling to do so until the Ministry of Health had stated what they would pay. It was decided to request Mr. Morrison to go on supplying drugs until the Committee had been able to make some other arrangement.

Sheffield.—At a meeting of the Insurance Committee congratulations were offered to the chairman, Mr. Neal, M.P., on his appointment as Parliamentary Under-Secretary to the Minister of Transport. Mr. A. J. Appleton, 642 Staniforth Road, was included in the list of persons supplying drugs, etc., and resignations from Messrs. H. Beeley and G. T. W. Newshome, Ltd., were accepted. Messrs. Neal and Moore were appointed to represent the Committee on the N.E. Midland Pricing Bureau. The following payments were passed: To chemists, 1,042*l.* 18*s.* 4*d.*; to the Pharmaceutical Committee, 25*l.* (for 1919); to Dr. A. Sinta, an advance of 40*l.* for dispensing during 1919; and to the N.E. Midland Pricing Bureau, 143*l.*

Southport.—At a meeting of the Southport Insurance Committee, held on December 29, letters from Messrs. J. Righton and W. Prescott were read, terminating their contract to supply drugs and appliances on December 31. It was resolved that Messrs. Righton and Prescott be asked to reconsider their decision.

Festivities.

F. Schutze's Annual Gathering.

On January 3 the employes of F. Schutze & Co., Ltd., held their annual social gathering at Wortley Hall, Seven Sisters Road, London; about 150 members of the staff and Mr. and Miss D. Schutze were present. After tea a musical programme was provided by the staff and friends, and the National Anthem and "Auld Lang Syne" concluded a most enjoyable evening.

Liverpool School of Pharmacy Social.

THE Liverpool School of Pharmacy held a students' dinner and social recently at the Bear's Paw, Lord Street, Liverpool, under the chairmanship of Mr. George R. H. Ellick, at which upwards of eighty guests were present. The Committee had provided a varied programme of interesting items, which were well rendered, and contributed much towards the pleasure and success of the evening. Votes of thanks to Mr. H. Humphreys Jones (the Principal) and others were accorded, and among the guests were Mrs. D. H. Evans and Mrs. Humphreys Jones.

Associations' Winter Session.

Essex.—At a meeting of the Essex County Association Committee, held on December 30, Mr. Bevan (Colchester) was elected treasurer in place of Mr. L. Matthews, who has resigned. Congratulations were extended to the newly formed association of Walthamstow pharmacists. It was decided to discontinue the monthly circulation of the "Script" to members, and in its place a circular-letter will be sent out by the secretary bi-monthly. The cutting of prices of protected articles in markets was deplored, and it was decided to communicate with the Proprietary Articles Trade Association on the matter. It was agreed to discuss federation at the next meeting, with a view to affiliation with the East Anglia Section.

Newport (Mon.).—A meeting of the Newport (Mon.) Chemists' Association was held on December 30, Mr. T. J. Badgett (President) in the chair. Mr. Benson Harries was appointed as delegate to the conference of local associations, and charged with a resolution expressing disappointment that the 50 per cent. increase in dispensing-fees has not been granted, and urging the L.A.E. to make a strenuous attempt to secure terms equivalent to those recently obtained by Scottish chemists. In view of the advance in fees offered, no member is pledged to resign from the local panel. It was decided to recommend members to adopt the "British and Colonial" price list and to promise the assistance of the association in case of a prosecution under the Profiteering Act to those who do. A resolution in favour of earlier closing was passed, and Messrs. Benson Harries and G. Shelley were appointed to make the necessary arrangements.

Southend-on-Sea.—A meeting of the Southend-on-Sea Association of Pharmacists was held on December 30, the President (Mr. R. H. Shields) in the chair. The secretary reported on his visit to the inaugural meeting of the East Anglia Sub-Federation at Ipswich. The subject of Insurance terms for 1920 and the problem of negotiation was considered, and it was unanimously resolved that every endeavour be made to secure the original demand. Mr. Sydney Body was appointed delegate to attend the conference of local Associations called for January 6, and was instructed to express the willingness of pharmacists present at the meeting to discontinue panel dispensing if so instructed by the L.A.E. Committee. No action was taken in respect of a letter received from the Dublin Retail Drug-trade Association seeking support in their effort to obtain a better percentage of profit on various proprietary articles. The Southend Chamber of Commerce had invited two representatives to attend a special conference of representative business men at the Council Chamber on January 8, and the President and secretary were duly nominated and consented to attend. Reference was made to the coming into force of the Rat and Mice Destruction Act, and the secretary was requested to ascertain from The British Drug Houses, Ltd., the available supplies of red squill extract, and, if no difficulty arose, to inform the local authorities that the pharmacists were prepared to supply this destroyer freshly dispensed for the public. The members considered the effect of the Profiteering Act, and the general opinion appeared to be that 50 per cent. on the selling price, reducing to 33½ per cent. on articles of appreciable value, was a fair rate of profit. It was agreed that articles in frequent demand could be priced at a still lower rate of profit. It was unanimously decided to hold a dinner, and a Committee was formed, consisting of Messrs. Crow, Hill, Ward, King, Gilmour, and Vint. Mr. King consented to act as convener.

Worcester.—A meeting of city and county panel chemists and members of the Worcester Pharmacists' Association was held at Worcester on December 31. Mr. W. Corbett presided, and representatives from Stourbridge, Kidderminster, Redditch, Bromsgrove, Malvern, Evesham, Droitwich, Stourport, Blackheath, and Worcester

were present. Insurance dispensing-terms and the new regulations were discussed. It was afterwards agreed that 50 per cent. advance in dispensing-fees was the minimum that should be accepted, and a resolution to that effect was passed. The following were appointed delegates to attend the conference on January 6: *City*, Mr. A. E. Coverdale; *County*, Messrs. A. S. Price and D. G. Pout. With regard to the interpretation of the term "reasonable hours," it was agreed that any extension of the present hours should be opposed unless special fees are paid for extra duty. A discussion took place on the advisability of trade associations joining local Chambers of Commerce, and a resolution was passed that the Association should apply for membership of the Worcester Chamber of Commerce.

Scientific Progress.

Temperatures under this heading are on the Centigrade scale.

Italian Manna.—Five Italian provinces supply the world's consumption of manna, which Raimondi classes into six different varieties, having the following content of mannite:

Manna in flakes, Capaci	62.15 per cent. mannite
" " Geraci	62 " "
" " Frassino	47 " "
" sorts, Capaci	37-55 " "
" " Geraci	37 " "
" " Castelbuono	28-30 " "

A New Explosive.—Moreschi ("Atti R. Accad. Lincei," XXVIII., 1919) found that by allowing hydrochloric acid gas to act upon commercial formaldehyde solution in the cold, under a reflux condenser, a heavy liquid was obtained, which on treatment with a mixture of concentrated sulphuric and nitric acids at 5° yielded a colourless oily liquid, with a specific gravity of 1.52206 at 4°, apparently corresponding to the formula $C_2H_4O_6N_2$. It explodes with a loud detonation on the slightest shock, and dissolves a considerable proportion of nitrocellulose.

Electrolytic Chloroform.—Feyer ("Zeitschr. f. Elektrochem.," XXV., 1919) has investigated the conditions prevailing in the preparation of chloroform from alcohol and acetone by electrolysis, particularly in the presence of alkaline and alkaline-earth chlorides. He has found that by this method large amounts of the chloroform formed are simultaneously decomposed by the alkali set free, but by using a neutralising cathode it is possible to prepare chloroform from acetone with a yield amounting to 65 per cent. He assumes that a hypochlorite is first formed, which then acts on the acetone. If a solution of calcium chloride is employed to prepare chloroform from alcohol or acetone, it is necessary to use specially prepared copper or nickel cathodes, by immersing them previously in concentrated nitric acid and then washing them with water. By this method a yield of 71 to 80 per cent. of chloroform is obtained, using acetone. The formation of chloroform from alcohol would take place in three phases—(1) oxidation of alcohol to aldehyde; (2) formation of an hypochlorite; (3) reaction of the hypochlorite upon the aldehyde.

Determination of Filicic Acid.—Perrin (Répertoire de Pharmacie, No. 3, 1919) states that it is essential to determine the amount of filicic acid present in extract of male fern, as many an extract may have the required content of filicin, without containing a trace of filicic acid, the essentially active constituent. He employs the following method: to the crude filicin, in the weighed flask, obtained according to the directions given in the B.P., add 2 c.c. of amyl alcohol, allow the mixture to stand for twenty-four hours, well corked, shaking occasionally. Thereupon, drop by drop, 20 c.c. of pure methyl alcohol are added; the first drops produce a precipitate which redissolves; when the precipitate does not redissolve the remainder of the methyl alcohol may be added at once. Shake, let the mixture stand for twenty-four hours in a cool place; filter, wash out the flask, then the filter, twice with 5 c.c. of methyl alcohol; allow the filter to dry; then place the filter and the flask in a cold oven and gently heat to 100°, allow them to remain at 100° for one hour; then weigh. The amount of filicic acid contained in the flask, plus the filicic acid on the filter multiplied by 25, gives the content of filicic acid in 100 grams of the extract; the amount should be from 3.5 to 9 per cent., according to the date of harvesting the male fern; while the content of filicin scarcely varies, the amount of filicic acid present is higher in autumn than in spring.

Proposed Non-Panel Medical Service.

By R. R. Rentoul, M.D., Liverpool.

IN the "British Medical Journal" June 22, I proposed that doctors establish a Public Medical Service. The proposal was referred by the Council of the British Medical Association to the branches; unfortunately, only two branches supported it. Hence the present degrading conditions. At the annual meeting of the B.M.A. 1912 I again brought the proposal forward. But again the usual apathy and "Damn you, I'm all right" policy. In 1886 I had the German Insurance laws translated, and I found that the German doctors were—as now—kicking against their panel scheme.

My proposal now is:

1. That a Public Medical Service shall be established.
2. That it shall be exclusively sound and controlled by its medical, dental, and chemists' staff.
3. That non-panel and panel doctors be members of the staff.

4. That each county and county borough in the United Kingdom shall be a local unit, and that each unit shall consist of not more than eight doctors, six dentists, and six chemists.

5. That the Central Council shall be elected yearly by each county and county borough unit.

6. That no rule or regulation shall be made, altered, or unmade except with the permission of the Central Council.

7. That the following shall be elected as benefit members:

(a) Husband, wife, and all children under the age of sixteen years and resident in the same house, whose gross annual income from all sources is under 250/.

(b) Single man or woman whose gross annual income is under 250/ from all sources.

8. Rates of payment by benefit members:

(a) Married members, where

Total income does not exceed 150/ p.a., pay 35s. p.a.

Total income does not exceed 250/ p.a., pay 45s. p.a.

(b) Unmarried member.

Total income not exceeding 150/ p.a., pay 20s. p.a.

Total income not exceeding 250/ p.a., pay 35s. p.a.

9. Subscription shall be paid half-yearly and in advance to the doctor chosen by the benefit member, and the doctor shall issue an official receipt-card to the payer. No benefit member in arrears shall obtain any benefit under the P.M.S. No benefits until three months after joining.

10. Each benefit member shall pay 1s. yearly to the working expenses fund, and each doctor, dentist, and chemist shall pay 5s. yearly to this fund.

11. *Benefits.*—Each member shall receive efficient medical treatment, either at the doctor's office, at the residence of the member, or at a treatment centre, as required. All certificates shall be free. A scale of fees shall be drawn up for surgical operations, consultations, and anæsthetic fees, and such fees shall be paid by the benefit member or parent or guardian to the doctor.

12. The fees of dentists shall also be drawn up by the dentists on the Central Council, and so shall the charges by chemists.

13. The obstetric fee shall be 50s., and it is recommended that the maternity benefit from the National Insurance Commissioners be increased to 100s., as now in force in Australia.

14. It is suggested that the medical benefit charge, as now estimated by the National Insurance Commissioners, the charge opposite drugs, and the charge opposite treatment of tuberculosis, be given by the Commissioners to the insured person who does not wish to be treated by a panel doctor, and that such sum be used by the insured

person to pay part of the above subscriptions fixed by Rule 8.

15. Vaccination fees shall be charged at the same rate as now paid under the Ministry of Health.

16. *Staff's Hours of Work.*—The hours of work for doctors, dentists, and chemists shall be the same as the hours of work adopted by trade unions, except that the staff shall start one hour later and work one hour later than stipulated in the local trade-union rules. Night work, Sunday work, and Bank holidays shall be charged a fixed fee, and at the rate of time and a half for day-paid work.

17. The P.M.S. shall be registered under the Trade Union Acts, or under the Friendly Societies Acts.

18. No member of the staff shall accept any club or tontine appointment.

I may add that some years ago the doctors in Brussels refused to accept any club work, but agreed to treat those whose income per family did not exceed about 90/ p.a. for 30s. p.a. per family. I have to thank Dr. G. Vandale for his translation of the rules of the doctors' society of Antwerp, where the doctors refused all club work. Further, in Ireland the doctors have steadily refused to accept panel work. I suggest that doctors in the United Kingdom at once call meetings to decide as to whether they shall form such a Public Medical Service as I propose. I shall be glad to give any further information. The scales of fees which I proposed will be found in the "British Medical Journal" of the above date, and in my work, "Reform of Medical Charities," 1891.

New German Patents.

Separation of therapeutically active substances from bodies containing vitamins and from organotherapeutic extracts, by C. F. Boehringer & Sons.

To isolate the vitamins from rice, yeast, etc., concentrated extracts of these substances are precipitated with phosphotungstic acid. Experiments have demonstrated that the therapeutically useless admixtures are soluble in acetone, and by treating the precipitate repeatedly with acetone, the phosphotungstic precipitate practically represents the pure vitamins. To separate out the latter the precipitate may be decomposed by neutral lead acetate, and on evaporating the solution the vitamins may be obtained in a crystalline form. The same process may be employed to isolate the therapeutically active components from extracts of thyroid gland. (D.R.P. 295,361.)

Preparation of a stable compound of hydrogen peroxide and carbamid, by Farbenfabriken vorm. Fr. Bayer & Co.

This permits the preparation of stable solutions of H_2O_2 of a definite content for medicinal uses. For instance, 170 parts of barium superoxide are added to a solution of 60 parts of carbamid in 500 parts of water, into which carbon dioxide is passed until the whole of the barium superoxide has been decomposed. The filtered solution of carbamid hydrogen peroxide is concentrated *in vacuo* at 40° C. (D.R.P. 293,125.)

Preparation of iodine and bismuth derivatives of gallocarbonic acid, by Farbenfabriken vorm. Fr. Bayer & Co.

These preparations are intended for use in the treatment of wounds, and experiments have demonstrated that they possess a powerful antiseptic effect, in addition to astringent properties. The bismuth oxy-iodide obtained from 966 parts of bismuth nitrate is mixed with 214 parts of gallocarbonic acid and sufficient water to form a thin paste. This is heated on the water-bath until no unaltered gallocarbonic acid is apparent, whereupon it is separated, washed with water and alcohol, and dried. The product obtained is a reddish-brown heavy powder, almost insoluble in the usual solvents. The addition of a mineral acid produces a precipitate of gallocarbonic acid. (D.R.P. 295,988.)

Reviews of Books.

Stereochemistry. By Alfred W. Stewart, D.Sc. Second edition. $8\frac{1}{2} \times 5\frac{1}{2}$. Pp. 277. 12s. 6d. (London: Longmans, Green & Co., 39 Paternoster Row, E.C.)

This is one of the series of text-books on physical chemistry the syllabus of which was devised by Sir William Ramsay. The two sections deal with (1) stereo-isomerism in carbon compounds, and (2) stereochemical problems into which isomerism does not enter. Stereochemistry, the phenomena to which are due the relative positions in space of atoms within a molecule, is of growing importance, and especially to pharmacists, as the different physiological action of many drugs is believed to be explained by it. This aspect is dealt with in a separate appendix. The book contains the fullest treatment of the subject of stereochemistry with which we are acquainted.

Organic Chemistry for Students of Medicine. By JAMES WALKER, LL.D., F.R.S. Second edition. $9 \times 5\frac{1}{2}$. Pp. 332. 10s. 6d. (London: Gurney & Jackson, 33 Paternoster Row, E.C.)

Dr. Walker is Professor of Chemistry in the Edinburgh University, and his object in writing this work has been to deal as concisely as possible with the chemistry required by medical students. As the time allotted to chemistry in the ordinary medical curriculum is about six months, the author has selected for treatment those organic chemical substances especially which are of medical interest. The result is excellent, and we await with interest the complete work on organic chemistry which the author promises. Pharmaceutical students will find the present volume of great use, as in many respects the requirements of pharmaceutical and medical students coincide.

Recent Advances in Physical and Inorganic Chemistry.

By ALFRED W. STEWART, D.Sc., with an introduction by SIR WILLIAM RAMSAY, F.R.S. Third edition. $8\frac{1}{2} \times 5\frac{1}{2}$. Pp. 234. 12s. 6d. (London: Longmans, Green & Co., 39 Paternoster Row, E.C. 4.)

Dr. Stewart, of the Belfast University, in this edition brings the previous edition up to date by including the recent advances in inorganic chemistry. Organic chemistry is dealt with in a separate volume (*C. & D.*, January 18, 1919, p. 45), the two books covering the domain of chemistry. There are twenty chapters in the present work, against fourteen in the second edition. The newer features deal with recent views on the elements, x-ray spectra, positive-ray analysis, and radioactivity. It is a good source of information on recent chemistry; and, as plenty of references are given for the statements, there is no difficulty in obtaining fuller particulars if desired.

The Condensed Chemical Dictionary, compiled by the Editorial Staff of the Chemical Engineering Catalog. $8\frac{1}{2} \times 6$. Pp. 525. \$5, or with flexible leather-cloth covers and thumb index \$6. (New York: The Chemical Catalogue Co. Inc., 1 Madison Avenue.)

The Chemical Dictionary aims to give certain information in a condensed form, regarding all chemicals and drugs found in commerce, and to meet the requirements of importers, exporters, brokers, and other people who have not been trained as chemists or pharmacists. To show the scope of the work we reprint the following monograph:

*Chloral Hydrate** ("Knockout Drops") $\text{CCl}_3\text{CH}(\text{OH})_2$. Color and properties: Transparent, colorless crystals; poisonous.

Constants: Specific gravity 1.901; melting-point 57°C ., boiling-point 97.5°C .

Soluble in water and alcohol.

Derivation: By the action of $\frac{1}{3}$ of its volume of water on chloral.

Method of purification: Crystallisation.

Grades: Technical, U.S.P.; B.P.

Containers: Glass bottles.

Uses: Medicine; liniments.

Fire hazard: None.

Railroad shipping regulations: None.

The asterisk denotes that the chemical is made in the United States. Similar information is given about hundreds of other articles and numerous cross-references help the reader, who turns up a name which is regarded as a synonym. The expression "knockout drops," used in the chloral hydrate monograph, is new to us. We have often received requests for a book such as the one under review, so that we think many people connected with the commercial side of the drug-trade will find this useful. At the same time it would be unfair to place absolute reliance upon all the statements, for example, all hydrocyanic acid, at least on this side of the Atlantic, is not of 10 per cent. strength. At the end are useful tables of atomic weights, metric equivalents, temperature equivalents, definitions of units, etc.

New Books.

Clowes, F., and Coleman, J. B. *Elementary Practical Chemistry. Part I., General Chemistry.* Seventh edition. $7\frac{1}{2}$ in. \times $4\frac{1}{2}$ in. Pp. 241. 6s. J. & A. Churchill, 7 Great Marlborough Street, London, W. [The seventh edition of that part of Clowes and Coleman's "Practical Chemistry" which contains an experimental course on the more important elements and their compounds and directions for quantitatively verifying the laws of proportion and equivalency. It commences with a description of the metric system of weights and measures and the determination of density and temperature. Directions are then given for the preparation and use of simple bench-apparatus. The student next studies the composition of air and water, the process of combustion, and the properties of some important non-metals and metals and their compounds. It is suggested that the teacher might found his lectures on the chapters, the student performing the practical part as laid down in the book under review. The book is suited for matriculation students.]

Ellis, D. *Iron Bacteria.* 9 in. \times $4\frac{1}{2}$ in. Pp. 179. 10s. 6d. Methuen & Co., Ltd., 36 Essex Street, London, W.C. 2. [Dr. Ellis, of the Royal Technical College, Glasgow, has been engaged for ten years upon an investigation of the organisms known as "iron bacteria," which contaminate water reservoirs and destroy iron pipes of water-distributing plant. This is a biological problem, the information upon which is scattered in various technical publications. The methods of treatment for water supplies contaminated with iron bacteria are summarised as (1) the sterilisation of the water—an impracticable suggestion, (2) removal of organic matter and the maintenance of alkalinity which remove the means of germination, (3) allowing the organism to have full scope on the principle of "giving enough rope to hang with." No toxic products result, and the organic matter is removed, (4) cutting off the particular part of the water supply, known to contain the organic matter which supplies the food.]

Gordon, Dr. A. K. *Health in the Home.* $7\frac{1}{2}$ in. \times $4\frac{1}{2}$ in. Pp. 245. 5s. Jarrolds, Publishers (London), Ltd., 10 and 11 Warwick Lane, London, E.C. 4. [Stated to be written with a view of giving every citizen some knowledge of the laws of health and disease. Gives an account of disease without suggesting cures. "Treatment that is not founded on a personal examination of the patient is pure and simple quackery." The writer has all the pet aversions and opinions of the younger generation of medical practitioners who has not had many years of general practice. For example, he is contemptuous of patent medicines, chemists, sight-testing opticians, vegetarians, nerve foods, British cooking, and teetotallers. He regards it as "a sign of bad times" when aspirin is advertised on the tube railways. Why, is not stated. The reader is constantly exhorted to "send for the doctor," and given scraps of advice, some of doubtful utility. For example, among the means of relieving a headache is a lotion consisting of "a teaspoonful of vinegar in half a pint of water," whilst in the toilet of the mouth tooth-pastes are to be used; "in addition, the mouth should be rinsed with a mild antiseptic lotion at the same time." The bewildered reader is left wondering 'how he is to perform this feat.]

International Mercantile Diary and Year-book for 1920. 10 in. \times $7\frac{1}{2}$ in. Pp. 323+diary pages. 7s. 6d., with monthly supplements. Syren and Shipping, Ltd., 91 and 93 Leadenhall Street, London, E.C. [Contains weights and measures and money tables especially adapted for exporters and travellers. An international section gives a *résumé* of the commercial conditions and centres and shipping facilities of all the important countries in the world.]

Trade-marks Applied for.

The figures in parentheses refer to the classes in which the marks are grouped, for a list of which, with particulars as to registration. See "The Chemist and Druggist Diary" 1920, p. 308.

(From "The Trade-marks Journal," December 3, 1919.)

- "SUBITINE BRAND A CHEMICAL SUBSTANCE"; for a medicinal chemical (3). By Chas. Zimmermann & Co. (Chemicals), Ltd., 9-10 St. Mary-at-Hill, London, E.C. 3. 394,389. (Associated.)
- "JOBRO"; for all goods (3). By J. Brown, 10 Dolefield, Bridge Street, Manchester. 395,383.
- "BROMO ADONIS"; for an epilepsy preparation (3). By Tucker Pharmacal Co., 263 Ryerson Street, Brooklyn, U.S.A. 395,699.
- "DACOL"; Device of mythical animal's head for binoculars, etc. (8). By Davies, Coleman & Co., Ltd., 42 Holborn Viaduct, London, E.C. 1. 393,806/7.
- "GOLDTEX"; for all goods (8). By J. Rosay, 160 Broadway, New York, U.S.A. 395,704.
- "VIGURA"; for photographic paper (39). By Paget Prize Plate Co., Ltd., 132 St. Albans Road, Watford, E. 393,582. (Associated.)
- "SAXOMA"; for sweetening tablets, etc. (42). By S. N. Wolson, 22 Cedars Road, Hampton Wick, Middlesex. 393,814.
- "CIMOLIA"; for soap and toilet powder (48). By J. Bell & Croyden, Ltd., 50 Wigmore Street, London, W. 1. 393,979.
- "MACFLORA"; for vanishing cream, etc. (48). By G. Jack, 2 Lismore Crescent, Edinburgh. 394,873.
- "CYMBAL"; for perfumery, etc. (48). By G. W. Goodwin & Son, Ordsall Lane Soap Works, Manchester. 396,005. (Associated.)

(From "The Trade-marks Journal," December 10, 1919.)

- "BLACKAJAO"; for all goods (1). By the Morcarvar Co., Ltd., 5 Castle Street, Liverpool. 394,545.
- "COBENA"; for chemicals (1 and 2). By Baxendale & Co., Ltd., 41 Miller Street, Manchester. 394,959/60. (Associated.)
- "PYRAMID" under picture of same; for anti-freezing mixtures for radiators, etc. (1). By J. Crosfield & Sons, Ltd., Bank Quay, Warrington. 395,294. (Associated.)
- "CALNUS"; for chemicals (2). By Ammonia Fertiliser Co., Duck Mill Lane, Bedford. 395,685.
- "VIMEDIA"; for all goods (3). By the Vimedia Co., 924 Baltimore Avenue, Kansas City, U.S.A. 390,672.
- "STHENAGEN BRAND TUBERCULOSIS REMEDY"; for tuberculosis remedies (3). By J. C. Elemans, Eckwal 9a, Zwolle, Holland. 391,192.
- "BRAVAIS' IRON," "FER BRAVAIS," etc., with device of cherubs and horses; for a ferruginous medicine (3). By Comte de Grauwe, 16 Rue de Rocroy, Paris. 391,567. (Associated.)
- "FARY"; for headache powders (3). By J. Robertson & Co., 24 N.W. Circus Place, Edinburgh. 393,984.
- "CASCO"; for all goods (3). By C. Ash, Sons & Co., Ltd., 5-12 Broad Street, Golden Square, London, W. 1. 394,699. (Associated.)
- "PIONEER BRAND F. B. LTD. LONDON" on oval device; for medicinal chemicals (3). By Fredk. Boehm, Ltd., 15-17 Jowry Street, London, E.C. 3. 394,760. (Associated.)
- "SUNBOW"; for medicinal chemicals (3). By Sunbow, Ltd., 53 New Broad Street, London, E.C. 2. 394,918. (Associated.)
- "WHITE FRIEND"; for medicinal chemicals (3). By T. Conroy, 26 Shaftesbury Avenue, London, W. 1. 395,611.
- "FATA-MORGANA"; for goods (3). By A. Baumann, 29 Gartenstrasse, Kassel, Germany. 394,598.
- "MEDIWAVER" and "MAXIWAVER"; for scientific instruments, etc. (8). By H. P. Rees, 8 Grange Park, Ealing, W. 5. 396,065/7. (Associated.)
- "QUINPHOS"; for all goods (42, 43, and 44). By Thompson & Capper, Ltd., College Lane, Liverpool. 395,884/5/6. (Associated.)
- "YOBARSAL"; for food substances (42). By Young & Barracough, Ltd., Water Lane, Leeds. 395,964. (Associated.)
- "MUSKETEE"; for mineral waters, etc. (44). By Mair & Dougall, Ltd., 35-41 Annfield Street, Glasgow. 395,961.
- "NARCYNTHIA"; for perfumery, etc. (48). By T. Fell, 3 Ridgmount Street, London, W.C. 1. 395,026.
- "UNITUR"; for all goods (48). By A. V. Castle, 234 Mansel Road, Small Heath, Birmingham. 395,388.
- "QUISSILS"; for toilet articles (48). By E. W. Shipman, 66 High Street, Hastings. 395,715.

- "FLEUREXE"; for a toilet cream (48). By F. C. Armstrong, Bonington Works, Heavitree, Exeter. 396,130.
- "SILWYRIUM"; for brushes (50). By M. Neuhafer & Levi, 11 Fore Street, London, E.C. 2. 394,418. (Associated.)
- (From "The Trade-marks Journal," December 17, 1919.)
- Oval device of elephant riding motor-scooter; for carbide of calcium (1). By L. E. Hough, 246 High Street, Lewisham, S.E. 13. 394,981.
- "KLENCYLL"; for anti-corrosive liquids (1). By A. Lumb & Son, Atlas Oil Works, Mount Street, Halifax. 395,104.
- "ALA"; for chemicals (1, 2, and 3). By Fabrique de Produits Chimiques Flora, Dubendorf, Switzerland. 395,229/30/31. (Associated.)
- "BONZA"; for chemicals (2) and for food substances (42). By Ferranti & Corbett, 31, 32 King William Street, London, E.C. 4. 393,766/7. (Associated.)
- "DOVERITE"; for insecticides, etc. (2). By H. Redford, 11 Crooked Lane, Birmingham. 396,027.
- "A O H" monogram; for a scalp preparation (3). By A. O. Hughes, 344a Liverpool Road, Patricroft Bridge, Manchester. 392,707.
- "LAXITEA BRAND HERBAL TEA"; for herbal tea (3). By T. H. Walton, 2 Upper Road, Batley, Yorks. 395,067. (Associated.)
- "RENADESYN BRAND OINTMENT"; for medicinal chemicals (3). By Boots Pure Drug Co., Ltd., 37 Station Street, Nottingham. 395,195.
- "LAXACHOC BRAND MEDICATED LOZENGES"; for medicinal chemicals (3). By G. F. Bushey, 141 Stockport Road, Levenshulme, Lancs. 395,842.
- "XANIX"; for medicinal chemicals (3). By S. H. Clayton, 258 Humberstone Road, Leicester. 396,039.
- "POLARIS" and "MINIWAVER"; for scientific instruments, etc. (8). By H. P. Rees, 8 Grange Park, Ealing, W. 5. 396,064/6. (Associated.)
- "BRENTFIELD"; for surgical instruments, etc. (11), and for dental chairs (41). By the Dental Chair and Engineering Co., Ltd., Dog Lane, Neasden, London, N.W. 10. 395,753/4. (Associated.)
- "PALATINE"; for all rubber goods (11). By the Leyland and Birmingham Rubber Co., Ltd., Leyland, Lancs. 396,307. (Associated.)
- "OLD BILL," with picture of same; for all goods (42). By Bruce Bairnsfather, 1 Sterling Street, Montpelier Square, London, S.W. 7. 394,701.
- "SPRIKO"; for goods (47) and for perfumery, etc. (48). By Vinolia Co., Ltd., 37-38 Upper Thames Street, London, E.C. 4. 396,002/3. (Associated.)
- Picture of traversing jack; for perfumery, etc. (48). By H. Whitworth, Ltd., 115 Princess Street, Manchester. 395,093. (Associated.)
- "SAMBOY"; for hair preparations (48). By Helena Jones, 22 Strand, Ryde, I.W. 395,628.
- Picture of airship marked "B. & S-95"; for toilet articles (48). By Barclay & Sons, Ltd., 95 Farringdon Street, London, E.C. 4. 395,818.
- "APCO"; for powder puffs, sachets, etc. (48). By A. Podmore, St. Cuthbert's, Hatch End, Middlesex. 396,168.
- "SANTOMAL"; for all goods (48). By the Santos Mail Trading Co., 80 Bellevue Road, West Ealing, London, W. 13. 396,204.
- "CROYDOLIA"; for perfumery, etc. (48). By F. S. Rose, 110 George Street, Croydon. 396,302.
- (From "The Trade-marks Journal," December 24, 1919.)
- "SULFOLINE"; for chemicals (1). By Vacuum Oil Co., Ltd., Caxton House, Tothill Street, Westminster, S.W. 1. 395,598. (Associated.)
- Cricket bat device, clock device; for chemicals (1). By W. Jacks & Co., 5 East India Avenue, London, E.C. 3. 396,172/3.
- "AQUASORB"; for chemicals (1). By P. Rogers, R. Davidson, and W. L. Ingham, 18 Craven Park Road, Harlesden, London, N.W. 10. 396,285.
- "IVY"; for adhesives (1) and (39). By Lloyd, Lowry & Co., 2 Basinghall Avenue, London, E.C. 2. 396,428/9. (Associated.)
- "VERKIL"; for vermicides (2). By Gillett & Co., 1A Rydal Avenue, Blackpool. 393,532.
- "DISTOL"; for disinfectants (2). By Milton & Sons, Ltd., 8 Parr Street, Liverpool. 395,542.
- "SACOL"; for disinfectants (2). By the Sacol Chemical Co., Ltd., Bankside, Hull. 396,332.
- "ODORONO"; for medicinal chemicals (3). By the Odorono Co., 947-949 Blair Avenue, Cincinnati, U.S.A. 387,179.
- "LITTLE MOVIES"; for medicinal tablets (3). By H. Francis, Oak Hall, Stock, Essex. 390,738.
- "SNOWDON," with medallion device of dog ("Snowdon" disclaimed); for medicinal chemicals (3). By W. J. Moore & Son, 24 Murray Place, Stirling. 392,956.

Trade Report.

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garbling and the like. Qualities of chemicals, drugs, oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities.

42 Cannon Street, E.C. 4 Jan. 8.

A VERY fair volume of business is in progress in the chemical and drug markets, the chief demand being for export. Prices, particularly of chemicals, have a distinct upward tendency owing to spot scarcity and the difficulty of obtaining fresh supplies. Among the chemicals which are more or less higher are acetanilide, aspirin, salicylic acid, carboic acid, guaiacol carbonate, hexamine, hydroquinone, paraldehyde and phenazone. Barbitone, sulphonal and methyl-sulphonal are lower. Cream of tartar and tartaric acid are dearer; citric acid is lower. Among the "heavies," soda salts, such as acetate, nitrite, and sulphide, are firmer; ammon. chlor. and muriate are dearer. English saltpetre has advanced about 3s., and sulphuric acid is 10s. per ton higher. Crude drugs have been quiet pending the resumption of the auctions next week. During the lengthy interval which has elapsed since the previous public sale very fair arrivals of drugs have taken place. Menthol and mint oil are rather cheaper, but the former shows a recovery from its lowest. Juniper-berries are easier. Cumin-seed is firmer, coriander being steady and fenugreek firm. Cod-liver oil is lower. Other changes include a decline of 10s. in quicksilver, an easier market for shellac, and a sharp rise in turpentine oil; linseed and castor oils are cheaper. Platinum has sharply advanced. In Mincing Lane speculation has been temporarily subdued by the so-called rubber crash, which has heavily hit several of the leading produce brokers, but the matter is quite local and has been magnified in the "stunt" Press out of all proportion to the importance it deserves.

Higher	Firmer	Easier	Lower
Ammon. chlor.	Alhumen	Anise oil, star	Barbitone
Ammon. mur.	Aspirin	Cloves	Castor oil
Antimony	Barium chlor.	Juniper-berries	Citric acid
Carbolic acid	Cumin-seed	Lemon oil	Cod-liver oil
Cream of tartar	Guaiacol carb.	Shellac	Linseed
Formic acid	Hydroquinone	Vanillin	Linseed oil
Hexamine	Lithopone		Menthol
Lead compounds	Soda acetate		Methyl
Paraldehyde	Soda nitrite		sulphonal
Pepper	Soda sulphide		Mint oil (Jp.)
Phenazone	Tartaric acid		Quicksilver
Platinum			Safrol
Salicylic acid			Sulphonal
Saltpetre			
Sulphuric acid			
Turpentine			

Cablegram.

NEW YORK, January 6.—Business is fair. Citric acid is lower at 84c. per lb.; Canada balsam has advanced to \$14.00 per American gallon; antipyrin is dearer at \$6.00 per lb.; formaldehyde has advanced to 32c., and methyl-salicylate to 80c. per lb.

ACETANILIDE.—According to a New York advice of December 18, there are large export orders in the market, which are difficult to fill, owing to lack of supplies; 55c. is quote. Spot (London) price is from 4s. to 4s. 3d. per lb. The *Mississippi* has brought 244 cases from Baltimore.

ALBUMEN is firmer, with spot sales of prime Chinese egg at 5s. 4d. per lb., and sellers of January-February shipment at 5s. 5d. c.i.f.

ALUM has been in large demand of late, and makers' prices are slightly higher.

AMMONIUM SALTS remain active and very firm. *Chloride* is dearer at 77l. per ton for small crystals in casks, and *Muriate* is also higher at 50l. per ton for galvanisers' quality. *Phosphate* is in fair demand at about 117l. 10s. per ton for 98 to 100 per cent. *Sulphate* continues under control. The price for consumption in this country is 21l. 7s. 6d. per ton for January, 21l. 15s. for February, and 22l. for March-April, less trader's discount 10s. per ton f.o.r. For the limited quantities available for export the prices are from 28l. to 35l. per ton, according to destination, compared with 16l. to 17l. and 30l. to 40l. per ton respectively for last spring delivery. The production is now estimated at about 380,000 tons in the United Kingdom, 300,000 tons in U.S.A., and 250,000 tons in Germany, compared with 425,000, 150,000, and 500,000 tons respectively in 1914.

ANISE OIL, STAR.—Is quiet. Sellers of the "Red Ship" brand quote 5s. 9d. to 5s. 10½d. per lb., according to quantity, the inside figure apply to 50-case lots, which have been sold at that price.

ANTIMONY.—As was to be expected, the question of much increased cost of imports, together with the much-reduced production in China, besides the steadily falling stocks in the chief consuming countries, tended to make for a strong fresh move in the antimony market with the turn of the year. Probably, after an understanding come to between the Ministry of Munitions and the chief home refiners in charge of the selling arrangements for the former, the price of good ordinary regulus has been advanced as much as 12l. 10s. per ton from 47l. 10s. to 60l., while the top brand of English was put up to 63l. There has been an active demand, as soon as it was suspected that prices would be raised, but sellers were generally unwilling to commit themselves until the new basis had been established as above stated. Foreign regulus to arrive is wanted eagerly, and the terms named are at around 58l. a ton c.i.f. home ports. Business in crude antimony is difficult in the absence of notable offers, and the market is chiefly nominal in the neighbourhood of 50l. a ton c.i.f. U.K.

APRICOT KERNELS.—Sales of parcels afloat have been made at 75s. per cwt. c.i.f.

ARSENIC.—There is not much business doing, offerings being rather light, but the tone is inclined to firmness on a fair demand. Cornish white powder is quoted at 65l. to 66l. per ton delivered London.

ASPIRIN is in upward tendency, following on the rise in salicylic acid, and in large quantities the makers' price is 5s. and in second-hand the dealers quote 5s. 3d. to 5s. 6d., as to quantity.

BARBITONE is lower at from 27s. to 28s. per lb.

BIARIUM CHLORIDE is slightly firmer at 23l. 10s. per ton for crystals or powder in casks and bags.

BERGAMOT OIL.—A Palermo advice dated December 27 states that the demand has been good, and the general feeling in the essential-oil market being so strong the value of bergamot has also benefited by higher prices, which were readily paid.

BLEACHING-POWDER remains in good demand, principally on export account, at about 18l. 10s. per ton in casks.

BROMIDES are firm and unchanged. Soda is in good demand at from 4s. to 4s. 3d. Potash is 4s. 3d. for granular and 4s. 6d. for crystals, and ammonia is 4s. 6d. to 4s. 9d. German makers prices have been steadily advancing of late.

CAFFEINE.—English makers report a good demand at 30s. per lb. for the pure crystals and 20s. for the B.P. citrate.

CAMPHOR OIL.—The exports from Japan during September amounted to 29,797 kin, valued at 7,435 yen. During the nine months ended September 30 the exports were as follows:

		1917	1918	1919
Kin	...	1,528,073	1,023,889	500,225
Yen	...	282,226	205,148	118,753

CAMPHOR (REFINED) is quiet, with sellers of Japanese 2½-lb. slabs at 20s. 6d. per lb. on the spot and at 19s. 6d. c.i.f. to arrive. 1-oz. tablets offer at 20s.

The exports from Japan during September amounted to

132,398 kin, valued at 598,215 yen. During the nine months ended September 30 they were as follows:

	1917	1918	1919
To Kin	Kin	Kin	Kin
British India ...	806,501	321,193	41,175
Great Britain ...	47,610	349,806	106,715
France ...	66,618	56,465	145,663
United States ...	1,371,827	496,829	1,176,028
Australia ...	73,426	89,575	2,019
Other Countries ...	181,440	180,105	53,675
Kin ...	2,547,422	1,493,973	1,525,275
Yen ...	4,372,687	3,083,555	5,070,684

CARBOLIC ACID is dearer at from 1s. 2d. to 1s. 3d. per lb. for 39° to 40° C. ice crystals, in large bulk packing. The export trade with Japan, which has been on an extremely large scale, has now diminished, as the Government have withheld export licences.

CASCARILLA.—A consignment valued at 386*l.* has been imported this week.

CASSIA FISTULA.—The exports from St. Lucia during 1918 amounted to 824 lb., against 1,360 lb. in 1917.

CASTOR OIL.—Owing to Continental competition, English prices are 2*l.* per ton lower, pharmaceutical quality, in barrels offering at 97*l.*, first at 94*l.*, and second at 92*l.* per ton net ex works Hull, barrels included.

CINCHONA.—At Amsterdam on Wednesday, January 21, 492 packages Java Succirubra bark, weighing 21,264 kilos., will be offered at auction. In London, on January 20, 245 bales Java and 14 East Indian will be offered.

CITRIC ACID is dull and cheaper at 4s. 1d. per lb. on the spot.

CLOVE OIL is quiet, English distilled offering at from 20s. 6d. to 21s. per lb.

CLOVES are easier, with spot sales of fair Zanzibar at 2s. 4½d. per lb.

COCA-LEAVES.—At auction at Amsterdam on Wednesday, January 21, 1,965 packages Java, weighing 107,761 kilos., will be offered.

COCAINE and salts to the value of 708*l.* has been imported from France. Hydrochloride on the spot is selling at from about 35s. per oz., and the pure alkaloid is 40s.

COD-LIVER OIL.—Rather lower prices are quoted for finest Norwegian oil, but dealers are not paying much attention to the market, as the drug is not profitable for them to handle, and the price permits of only retail sales. The new Lofoten fishing will be opening towards the end of the month.

CODEINE.—Makers' quotations are unaltered at 25s. per oz. for the pure crystals, and 21s. for the hydrochloride, sulphate, and phosphate on 175-oz. contracts.

COPPER SULPHATE.—While export-trade prospects are regarded hopefully, with a fair number of inquiries, the negotiation of orders is progressing somewhat spasmodically, but the tendency is very firm, the lowest quotation f.o.b. Liverpool being 43*l.* in casks, less 5 per cent. Merchants seem inclined to buy a little more freely in anticipation of improving exports. The attitude of makers is to some extent influenced by the much higher prices established for the metal, which show an advance of over 20*l.* per ton compared with a few weeks ago.

CORIANDER-SEED is steady at 17s. per cwt. for old crop Morocco, and 17s. 6d. for 1918 crop.

CREAM OF TARTAR continues scarce, and prices are higher at from 280s. to 285s. per cwt. on the spot. There are few buyers to arrive, as the price is prohibitive and above the London parity. Spanish and Italian makers are considerably behindhand with deliveries owing to lack of fuel and labour difficulties.

CUMIN-SEED is firmer, owing to advices from Morocco, and holders are now asking 47s. 6d. per cwt. for good sifted, but lower qualities can be bought at 42s. 6d. to 45s.

FARINA is quiet, with sales of No. 1 Japanese at 38s. 6d. per cwt. on the spot, at 37s. 6d. afloat, and 38s. c.i.f. for January-March shipment. Sweet potato flour is 32s. on spot and 31s. 6d. c.i.f. for January-March shipment.

FENUGREEK-SEED is firm, with business at 16s. per cwt. for fair Morocco.

FORMALDEHYDE.—New York reports heavy orders in the market, but that it is impossible to fill them. Makers are far behind with their deliveries, and with the increasing scarcity of wood-alcohol the pinch in formaldehyde is likely to be felt for some time. Arrivals in London to the value of 5,257*l.* have taken place. The spot price is 200*l.* to 205*l.* per ton.

FORMIC ACID is about 5*l.* per ton higher, and somewhat scarcer, as imports have fallen off; 80-per-cent. commercial is offered at 115*l.* and 70-per-cent. commercial at 110*l.* per ton in barrels.

GALLS.—Chinese are firm at 185s. per cwt. for plum-shape on the spot and at 180s. c.i.f. afloat; ordinary shape is 180s. spot and 175s. c.i.f. afloat.

GINGER.—Japanese is tending firmer, with buyers at 60s. per cwt. on the spot. At auction 100 bags wormy Cochin sold at 75s.

GUAIACOL CARBONATE is in short supply at the moment, and is firmer at from 32s. 6d. to 35s. per lb.

GUAIACUM.—A parcel of 119 cwt. has arrived in London.

HEXAMINE is extremely scarce on the spot, and the firmer prices of from 11s. 6d. to 12s. per lb., as to quantity, are now asked.

HONEY is steady, the chief demand being for the lower-priced Australian descriptions.

HYDROQUINONE is firmer at from 13s. to 13s. 6d. per lb. on the spot.

JUNIPER-BERRIES are 1s. per cwt. easier, fair Italian offering on the spot at 29s.

LEAD ACETATE is firmer, in sympathy with the rise in metal, white crystals offering in five-cwt. casks at 65*l.* per ton.

LEAD COMPOUNDS.—Pig-lead has been an astonishingly strong and buoyant market, and sells at considerably more than double the price current late last summer. Further price revisions took place since our last issue in lead-compounds, the demand for which continues considerably in excess of the supply. At the last revision prices were fixed thus: Dry white lead 66*l.*, white lead in oil 76*l.* 15s., and red lead and litharge 65*l.* to 67*l.* a ton, according to quantity, for the home trade and export.

LEMON OIL.—Spot prices are irregular, ranging from 6s. 6d. up to 7s. 3d. per lb., and for forward delivery from 8s. 8d. to 8s. 10d. c.i.f. is quoted.

A Palermo advice, dated December 27, states that, "notwithstanding the holidays, we again had a week of great excitement and very heavy fluctuations. In the early part of the week a large purchase of prompt oil, which had to be effected at a considerably higher price than what was ruling at the time, again started an upward movement, which, in the present excited state of the market, was followed by all operators, causing prices to rise rapidly. The movement was encouraged also by the firm rates of the foreign exchange. During the last days, however, the exchange is weaker again, and is naturally telling on prices in foreign currency."

LINSEED OIL is rather lower at 106s. per cwt. naked ex-mill, and in Hull 105s. 6d. is quoted.

LITROPONE is in light supply, and is advancing, as it is difficult to obtain; for white 30 per cent. 47*l.* 10s. per ton c.i.f. is quoted in casks.

MENTHOL was quiet and lower in the early part of the week, with spot sales of Kobayashi-Suzuki at 70s. per lb., but subsequently sales were made at from 71s. 6d. to 72s. 6d., sellers on Wednesday asking 75s.

METHYL SALICYLATE remains firm at from 4s. 9d. to 5s. per lb. on the spot.

METHYL SULPHONAL is still a falling market, importers offering at from 55s. to 57s. 6d. per lb.

MILK-SUGAR has been quiet for some time past, but the price of best Dutch powder remains unchanged at 220s. per cwt., and American can be had at slightly less.

MINT OIL.—Japanese dementholised is quiet, with sellers of Kobayashi-Suzuki at 17s. per lb. on the spot.

MORPHINE.—Makers' prices are unaltered on the basis of 15s. per oz. for hydrochloride powder and 15s. 3d. for crystals.

OPIUM.—There appears to have been considerable buying on the part of Japan on the Smyrna market, that country getting ready for any eventualities regarding

anticipated legislation, and prices at that source have advanced. On the spot Turkey (12 per cent.) is quoted at from 20s. to 21s. Persian is nominal at from 45s. to 50s.

A Smyrna report, dated December 20, states that the sales have been very important, amounting in all to 143 cases of various qualities; prices started at ps.770 to ps.870 (or 20s. to 21s. per lb. c.i.f.). Taking the abnormal high exchange, which is now about ps.370 per pound sterling for cheque, and \$1.02 for one Turkish paper pound, the advance in opium is not justifiable; anyway, the competition on the part of buyers to secure enough stuff to cover their engagements, coupled to the high exchange, brought on this advance, and we are of opinion that still higher figures will be ruling before New Year. The arrivals to date are 1,250 cases, against 90 at same date last year.

ORANGE OIL.—The requirements of local terpeneless oil manufacturers and the scarcity of the available supply (says a Palermo advice of December 27) are causing the market to advance still further, and are making the position most difficult; in fact the available supply is in the hands of speculators, who, so far, have been able to realise the much higher prices asked.

PARALDEHYDE.—Spot supplies are scarce, holders asking 7s. 6d. per lb., and for forward delivery from 6s. 3d. to 6s. as quoted. American workers have advanced their prices this week.

PHENAZONE.—The American price has advanced to \$4.00 per lb., which is considerably above the London parity. There are large export orders on this market, but they can only be partially filled, and with small stocks spot prices are tending upwards at from about 23s. to 24s. and even more.

PIMENTO is quiet with spot sales at 6d. per lb.

PLATINUM has further advanced by 268s. per oz. to 770s. and scrap by 300s. per oz. to 742s. In December last the price was advanced by 60s. and 42s. respectively.

POTASH PERMANGANATE is firm and in fair demand at about 3s. 9d. per lb.

POTASH PRUSSIAN.—English make is very firm, yellow offering at from 2s. to 2s. 2d. per lb. as to quantity.

QUICKSILVER is 10s. per bottle cheaper at 23l. from the leading importers, with secondhands offering at slightly less. Demand is quiet. A consignment of 25,602 lb. has been entered *via* Switzerland.

QUININE.—The position remains unchanged, secondhand sellers quoting sulphate at from 5s. 2d. to 5s. 6d. per oz. Druggists continue to supply limited quantities to their customers at from 3s. 11d. to 4s.

RESORCIN.—Only trifling lots can be had, and for these holders ask 40s. to 45s. per lb.

SAFFRON is firm, with spot sales of Valencia at 82s. 6d. and finest at 85s. per lb.

SALICIN.—The makers are able to supply a moderate quantity at 50s. per lb.

SALICYLATES.—The rise in carbolic acid has resulted in an advance of 2d. to 3d. for salicylic acid B.P. powder, which is now worth from 3s. to 3s. 3d. per lb. Sodium-salicylate is quiet at from 3s. 9d. to 4s. per lb.

SALTPETRE.—From January 1 the prices of best London refined Bengal saltpetre are as follows for 5 cwt. and upwards: Crystals or granulated, in 1-cwt. bags, 65s. 6d. per cwt., in 2-cwt. bags 64s. 6d.; powdered, in 1-cwt. bags, 67s. 6d., in 2½-cwt. casks, 66s. 6d. per cwt. For quantities of less than 5 cwt., 6d. per cwt. extra will be charged. In place of the resale allowance hitherto made the terms will carry a trade discount of 10 per cent. Delivery is free to rails or buyers's warehouse in London only. If the saltpetre is required packed in casks, 1l. per ton extra will be charged. The minimum resale prices are, subject to the usual resale allowances: Crystals, 1-cwt. bags, 65s. per cwt., 2-cwt. bags, 64s.; granulated, 1-cwt. bags, 65s., 2-cwt. bags, 64s.; and powdered, 1-cwt. bags, 67s., 2½-cwt. casks, 66s.; 6d. per cwt. for 5 cwt. and upwards; 6d. per cwt. for net cash in seven days, delivered f.o.r. or wharf in London.

SANDALWOOD-OIL.—Mysore distilled to the value of 300,000l. has been received in London.

SHELLAC is lower on balance. The spot market closed last week at an advance of 10s. per cwt., usual standard TN Orange quality selling at 850s. and this figure was paid on Monday; AC cakey has been sold at 640s.; and GAL at 620s. On Tuesday TN on spot declined 10s. to 820s., and at this price the market closed on Wednesday. Sales for March delivery have been made at from 830s. to 815s. to 800s. and May at 820s. to 800s. to 795s.

The landings in London during December of orange, garnet, and button lac were 593 cases, the deliveries 10,732 cases, and the stock on January 1, 14,641 cases, against 26,853 cases in 1919 and 26,052 cases in 1918. The total landings for 1919 were 67,180 cases and the deliveries 79,647 cases, compared with 23,074 cases and 22,268 cases respectively in 1918.

The above figures show that last month only 598 cases arrived, while the deliveries were 10,732 cases, which partly account for the soaring prices, while the reduced shipments from Calcutta, with little prospect of a material increase in imports from that source, accentuate the scarcity.

SODIUM ACETATE is firmer at 52s. for best white on the spot.

SODIUM HYPOSULPHITE is scarce and firm at 21l. 10s. per ton for commercial and at 26l. 10s. for pea crystals.

SODIUM NITRITE is very scarce, the value of 96 to 98 per cent. being about 65l. per ton.

SODIUM SULPHIDE is in better demand, and rather dearer at 16s. 10s. per ton for crystals (30 to 32 per cent.) and at 27l. for concentrated (60 to 62 per cent.) in casks.

SULPHONAL is cheaper at from 55s. to 56s. per lb.

SULPHURIC ACID is dearer. The price quoted in London and district for the brown (commercial) acid is 5l. 15s. per ton in tank wagons, and 6l. 10s. in carboys, ex works, at 140° Tw., with an increase or decrease of 8d. for each complete degree. The increased cost of railway freightage (50 per cent. *plus* 6d.) is likely to cause a further advance in the price.

TANNIC ACID.—*Leriss* is firm at from 10s. 6d. to 11s. per lb. on the spot.

TARTARIC ACID is in good demand and firmer at from 5s. 5d. to 5s. 5½d. per lb. on the spot.

THYMOL remains firm at from 40s. to 45s. per lb. on the spot.

TURPENTINE has continued to meet with an active demand at a further substantial advance, with spot sales of American at from 156s. 6d. to 169s. 6d. per cwt., but on Wednesday the price declined to 164s.

VANILLIN is a trifle easier at from about 79s. to 80s. per lb. on the spot.

WAX, VEGETABLE, meets with a fair inquiry, with spot buyers at 92s.

WINTERGREEN OIL.—Genuine is scarce on the spot at from about 40s. to 42s. per lb.

ZINC PRODUCTS.—Another substantial rise having taken place in the price of the metal, which is in keeping with the views expressed here recently, the tendency of all zinc products is still upward, and there is a growing demand. Zinc white, or common low-grade zinc oxide, finds a ready outlet, home-makers' ideas being about 45l. per ton delivered. Zinc oxides generally are much firmer, and prices have been to some extent revised except for some of the top grades, makers in certain cases still booking orders on old terms. Leading makers quote 80l. for "White seal" and 75l. for "Green seal," while "Red seal" sells at about 72l. 10s., which latter figure shows a considerable advance from the terms accepted recently. It is stated that there is a large home and export demand on this basis. In spite of the prohibition of imports of high purity zinc-oxide, the home supply of this description is about sufficient to cope with current needs. It seems probable that the price of zinc will yet move up considerably more in the near future, and allied products will therefore be affected accordingly.

Arrivals of Drugs, Chemicals, and Allied Produce.

The following arrivals have taken place at the ports named:

London
(Dec. 22 to 24).
Barytes (Hamb.) 120 cks., (Holl.) 47 cks.
Carbon black (U.S.), 200 cs.
Casein (B'bay), 80 bgs.
Chemical products, etc. (Jp.), 5 cs.
Argol, (It.) 75 cks.
384 bgs., (Cape)
271 bgs., (Fr.) 226 bgs.
Borate, calcined (U.S.), 16,505 cks.
Corrosive sublimate (It.), 14 cs.
Oxalic acid (Swe.), 4 cks.
Quinine (S'pore), 10 cs.
Soda, caustic (N.Y.), 18 cs.
Sulphur (U.S.), 2,010 bgs.
Tannin (N.Y.), 43 bgs.
Tartar, (Fr.) 668 bgs.
200 bgs. 414 bgs., (It.) 125 cks.
Tartaric acid (It.), 140 bgs.
Wine lees (Fr.), 35 bgs.
Zinc oxide (Holl.), 200 cks.
Drugs, crude, etc.: drugs and chemicals, (Fr.) 14 cs.; herbs (It.), 20 bgs.; leaves (Fr.), 253 bgs.; flowers, dried, 14 bgs.
Aloes (Cape), 313 cs.
Araei (Cey.), 25 bgs.
Benzoin (S'pore), 31 cs.
Cantharides (Ch.), 70 cs.
Carramoms (E.I.), 153 cs.
Cassia fistula, 19 pkgs.
Cinchon. (Cristobal), 249 pkgs.
Coca (N.Y.), 23 bls.
Outeleish boue (E.I.), 139 bds.
Dragon's blood (S.S.), 17 cs.
Galangal (Ch.), 60 bgs.
Juniper berries (It.), 50 bgs.
Kola (W.I.), 69 bgs.
Licorice juice (It.), 276 cs.
Manna (It.), 42 pkgs.
Menthol (Jp.), 20 cs.
Myrrh (B'bay), 87 bgs.
Nux vomica, (Cey.) 32 cts., (Cochin) 357 bgs.
Opium (B'bay), 100 cts.
Orris (It.), 320 bgs.
Sage (Fr.), 57 bgs.
Sarsaparilla (Cristobal), 25 bgs.
Squill (It.), 192 bgs.
Turmeric (E.I.), 501 bgs.
Witch-hazel leaves (N.Y.), 29 bgs.
Dyes, dyeing and tanning materials, etc.: anthracene (Fr.), 100 bgs.; chestnut ext. (U.S.), 299 bgs.; extract, tanning (U.S.), 301 bgs.; gambier (S'pore), 425 cs.; indigo (Fr.), 25 cs.; myrabolans (E.I.), 1,269 bgs.; 3,810 pockets; sumao (It.), 1,000 bgs.; wattle bark (Natal), 7,425 bgs.; (extract), 3,812 bgs.

Egg products: (Ch.), whole, 284 cs.; yolk, 800 cks.
Gelatin (Fr.), 56 bls.
Gums, resins, etc.: copal, (Fr.) 5 cks.; (Manila) 200 cs. 1,350 bgs.; damar (S'pore), 257 cs.; elemi (Manila), 350 cs.; lac: button (Ch.), 42 cs.; seed (E.I.), 4 bgs.; shell, 133 cs. 600 cts.; olibanum (Ch.), 146 cs.; resin, (Port.) 22 bgs.; (Fr.) 700 cks., (U.S.) 1,000 bgs.
Honey, (W.I.) 2 cs. 2 x ½ cks. 82 cks., (N.Y.) 25 bgs.
Lead, white (U.S.), 118 cks.
Limo-juice (W.I.), 39 puns.
Lithopone (Hamb.), 40 cks.
Oils, essential, (Sp.) 3 cs., (W.I.) 14 cs., (E.I.) 12 cs.; anise, star (Ch.), 300 pkgs.; 225 cs.; cassia (Ch.), 325 cs.; cinnamon leaf (Cey.), 25 cs.; lemongrass (E.I.), 11 drms.; mint (Jp.), 20 cs.; orange (W.I.), 10 cs.; palmarosa (B'bay), 12 pots; peppermint (Fr.), 15 cs.; sandalwood (E.I.), 150 cs.; turpentine, (Fr.) 650 bgs., (U.S.) 6,001 bgs.
Oils, fixed: not described (Holl.), 192 bgs.; coconut, (E.I.) 6,761 pkgs. 289 bgs., (N.Y.) 114 pps. 162 bgs.; groundnut (Ch.), 4,300 cs.; lin. (Antw.) 290 bgs., (Holl.) 172 bgs.; olive (It.), 50 cs.; soya (Holl.), 857 bgs.; sperm (Natal), 40 tanks; tea (Ch.), 8,030 cs.; wood (Ch.), 149 bgs. 4,410 cs.
Paraffin, liquid (U.S.), 2,000 cs.
Perfumery, (Belg.) 9 pkgs., (Holl.) 14 cs.
Petroleum jelly (U.S.), 200 bgs.
Seeds: almonds, 274 bgs. 130 cs.; apricot kern. (Ch.), 157 bgs.; caraway (Holl.), 150 bgs.; cashew (E.I.), 449 cs.; copra (E.I.), 8,203 bgs.; cotton (Alex.), 250 tons; ground-nuts (Ch.), 62 bgs.; ivory (S. Amer.), 500 sks. 700 bgs.; lin. (Antw.) 5,621 bgs., (Fr.) 672 bgs. 180 tons. 151,490 kilos., (E.I.) 8,328 bgs.; millet (Fr.), 622 cks.; mustard (Hamb.) 318 bgs., (Denm.) 651 bgs.; sunflower (E. Af.), 80 bgs.
Soapstone (Fr.), 502 bgs.
Soy (Ch.), 200 pkgs. 270 cks.
Spices: cassia (Ch.), 2,151 bgs. 2,918 cs.; chillies (B'bay), 20 cs.; cinnamon (Cey.), 300 bgs. 533 pkgs.; cloves (B'bay), 856 bds.; ginger (E.I.), 225 bgs.; nutmegs (E.I.), 515 cs.; pepper (E.I.), 8,514 bgs.; pimento (W.I.), 3,864 bgs.
Spirit, rectified (Natal), 49 drms.
Starches, etc.: not described (Jp.), 300 bgs.; farina (Holl.), 300 bgs.; maize (N.Y.), 1,239 bgs.
Talc (Fr.), 500 bgs.
Wax, not described (Hamb.), 200 bgs.
Wax, bees' (Port.) 233 pkgs., (E. Af.) 72 blocks 65 bgs.
Wax, paraffin (U.S.), 4,475 bgs. 772 bgs.

Liverpool

(Dec. 22 to 24).

Carbon black (U.S.), 156 cs.
Chemical products, etc.: bromides (Chagen), 6 cs. 4 bgs.; cryolite (Chagen), 500 bgs.; tartaric acid (It.), 40 bgs.
Drugs, crude, etc.: Cinchona (Cey.), 40 bgs.
Ipecacuanha (Montevideo), 4 bgs.
Licorice paste (Smyr.), 475 cs.
Dyes, dyeing and tanning materials, etc.: cutch (E.I.), 450 bgs.; myrabolans (E.I.), 2,600 pockets 1,700 bgs.; quebracho (S. Amer.), 79,120 bgs.; valonea (Smyr.), 3,976 bgs.
Egg products (Ch.): albumen, 428 cs.; whole, 100 bgs. 104 cks.; yolk, 215 pkgs. 799 cks.
Farina (Jp.), 1,288 bgs.
Gum, copal (S.S.) 370 cs., (W. Af.) 80 bgs.
Magnesite (Linn), 33,859 bgs.
Molasses (Cuba), 3,650 tons.
Oils, fixed: coconut (E.I.), 1,500 cs. 2,570 x ½ cts.; groundnut (Ch.), 284 cks.; palm (W. Af.), 4,477 cks.; palm kernel (W. Af.), 3,200 bgs.; rape (Ch.), 60 bgs.; soya (Ch.), 252 cks.; wood (Ch.), 201 bgs. 2,410 cs.
Kennet ext. (Chagen), 125 bgs.
Seeds: copra, (E.I.) 20,282 bgs., (W. Af.) 968 bgs.; illipe (S.S.), 6,260 bgs.; lin (Ch.), 310 bgs.; palm (W. Af.), 67,651 bgs.; rape (Ch.), 945 bgs.; sesame (Ch.), 420 bgs.; spices: cassia (Ch.), 940 cs.; cinnamon (Cey.), 57 bgs.; pepper (E.I.), 292 bgs.
Wax, paraffin, (Cal.) 1,335 bgs., (U.S.), 748 bgs.

Goole

(Dec. 19 to 22).

Acacia, gum (Belg.), 342 bgs.; farina (Holl.), 250 bgs.; oxalic acid (Chagen), 10 bskts.; potashes (Holl.), 121 drms.

Hull

(Dec. 19 to 20).

Barytes (R'dam), 60 cks.; cod-liver oil (Norw.), 69 bgs.; extract (Fr.), 200 cks.; kola (W. Af.), 39 bgs.; palm oil (W. Af.), 552 bgs. 8 puns, 1,088 cks.; peppermint oil (Holl.), 20 cs.; resin (Fr.), 140 cks.

Seeds: caraway (Holl.), 200 bgs.; castor (W. Af.), 100 bgs.; copra (W. Af.), 174 bgs.; cotton, (W. Af.) 265 bgs., (E.I.) 66,107 bgs.; ground-nuts (W. Af.), 9,837 bgs.; lin (R. Plate), 45,855 bgs.; mustard (Holl.), 300 bgs.; palm kern. (W. Af.), 86,057 bgs. 2,543

tons; shea (W. Af.) 726 bgs.; tartar (Fr.), 20 cks

Southampton

(Dec. 22 to 23).

Perfumery (Fr.), 4 cs.; spirit, rectified (Natal), 50 drms.; wattle bark (Natal), 3,650 bgs.; extract, 4,383 bgs.; wax, bees' (E. Af.), 44 bgs.

Palm-kernels Duty.

The Governor of Nigeria reports that the export duty on palm kernels has been raised from 1*l.* 2*s.* 6*d.* a ton to 2*l.* a ton from December 22, and is to be raised to 3*l.* a ton on February 1, 1920. The export duty on palm oil has been raised from 2*l.* to 3*l.* a ton, with effect from February 1, 1920, inclusive. The export duty on ground-nuts has been raised to 1*l.* a ton, with effect from February 1.

The Quinine Contract.

The "Preanger Bode" publishes the following open letter, addressed by M. W. G. Jongkindt Coninck to MM. Tiedeman and Van Kerchem, directors of the Kinamaatschappij Kertamanah, in Batavia:

Gentlemen,—In your printed report for the year 1918 of the Kinamij, Kertamanah I see on page 9:

"There remain two Dutch undertakings, which, placing their own immediate interests above the common weal, which is nevertheless their own, have not participated in the agreement."

One of the undertakings referred to is the Saderehe establishment, and as the commissioner of the Mij. Saderehe Plantation, I wish to state that this attack is unjustified. Personal interests played no part in the decision arrived at. We did not desire to be pestered by the monopoly of manufacturers, particularly the Bandoeng Quinine Factory, which wished entirely to exclude Japan, as it is now trying to do with Germany. This cannot be in the interests of the trade. The secrecy observed by the Cinchona Bureau and by the delegation could not lay claim to our confidence in the least. The small privileges of manufacturers which they have succeeded in assuring themselves, and which deal with as many articles as there are names of samples, analyses, pharmaceutical bark, etc., I shall leave unmentioned, but I merely wish to ask two questions: We ascertained from the board of the Koloniaal Bank in Amsterdam that during the past years the price for Ed. II. was fl.65 per kilogram. How is it possible to distil (*sic*) out of this a unit price of 10 cents? With what right do manufacturers claim the so-called supply of delivered bark to the Bandoeng Factory, certainly no small item 32.3 cents per kilogram of bark? which means 162,500 florins on a harvest of 500,000 kilograms.

German Drug and Chemical Markets.

(Continued from last week's "C. & D.")

HELIOTROPIN.—Makers are scarcely able to supply, and dealers are asking m.575 net. The demand is increasing.

MENTHOL has reached the excessive price of m.1,175 net, at which it must be bought from abroad when required owing to the depreciated currency.

MILK-SUGAR is becoming very scarce at m.22.50 net.

PALMAROSA OIL is unchanged at m.400 net.

PHENACETHIN is scarce.

PHENOLTHALEIN.—Makers are behindhand in filling orders.

POT. BROMIDE.—Large orders from abroad have almost cleared the stocks in Hamburg.

POT. PERMANGANATE.—Large quantities have been exported at m.63 net.

POT. SULPHOGUAIACOLATE is scarce and in demand at m.230 net.

PYRAMIDON is in large demand. Prices of pyramidon substitute have advanced considerably.

RESORCIN.—Makers have raised the price, and dealers are following suit.

SALICYLIC ACID has reached the high figure of m.50.

SALOL has been extensively purchased at m.190 net.

SILVER NITRATE, in consequence of the adverse rate of exchange, is now quoted at m.1,000 net.

SODIUM BENZOATE.—Owing to the want of raw materials manufacturers are very short of stock, and it is quoted by dealers at m.58 net.

SODIUM BROMIDE has changed hands at m.46 net, and is scarce.

TARTARIC ACID has continued to advance in price; supplies have greatly diminished, and the demand is increasing. Granular is quoted m.64, powder m.66, and crystals m.66.



Letters for this section should be written on one side of the paper only. The writer may adopt an assumed name for purposes of publication, but he must in all cases furnish his real name and address to the Editor.

Proof-spirit Conversion Tables.

SIR,—May I be allowed to add to the very useful information given under the above heading in the *C. & D.*, January 3, p. 76, the following diagram illustrative of the percentage system on which the Excise method of stating the strengths of spirits is based? Undoubtedly the terms "over" and "under" proof are, as you state, somewhat confusing to many persons, and this diagram, which is self-explanatory, may be helpful in making the matter clearer by graphically representing the definition given in your article.

Yours faithfully,

F. C. J. BIRD.

Analytical Laboratory, Devon Wharf, Mile End, E. 1.

Excise Description.		Percentage of Proof Spirit.	
Over Proof	Absolute } 75.35 O.P. —————	—175.35 per cent.	
	Alcohol }		
	Spirit 70 O.P. —————	170	"
	" 60 O.P. —————	160	"
	" 50 O.P. —————	150	"
	" 40 O.P. —————	140	"
	" 30 O.P. —————	130	"
	" 20 O.P. —————	120	"
	" 10 O.P. —————	110	"
PROOF SPIRIT —————		100	"
Under Proof	Spirit 10 U.P. —————	90	"
	" 20 U.P. —————	80	"
	" 30 U.P. —————	70	"
	" 40 U.P. —————	60	"
	" 50 U.P. —————	50	"
	" 60 U.P. —————	40	"
	" 70 U.P. —————	30	"
	" 80 U.P. —————	20	"
	" 90 U.P. —————	10	"
Water 100 U.P. —————		0	"

O.P. = Over proof.

U.P. = Under proof.

Wholesale Druggists' Cricket.

SIR,—With regard to the note in the *C. & D.* (January 3, p. 75), I am making endeavours to get the wholesale chemists' and druggists' cricket championship again in full swing for the coming season, and would esteem it a favour if you mention that a meeting will shortly be called. All interested are cordially invited to communicate with me at the address below.

Yours faithfully,

R. O. SIBLEY,

Hon. Sec., "W. C. & D. C. Championship."

22 to 30 Graham Street, London, N.1.

Compulsory Dispensing.

SIR,—Let me assure Mr. Ferris (*C. & D.*, January 3, p. 86) that, in my judgment, the General Medical Council would strike off the Register the name of any doctor who refused to attend an Army man, or an ex-Army man,

only because he was an Army or an ex-Army man. If the Army authorities wrote to the Council drawing attention to such a case, the Council would certainly conclude that it was "infamous conduct in the professional sense." The case, strange to say, is stronger with regard to a licentiate of the Pharmaceutical Society of Ireland, for while there is nothing in the law to prevent any man or woman from practising medicine even for gain—provided he does not pretend to be registered—it is a definite offence to compound or dispense a prescription in Ireland unless one holds the certificate of the Pharmaceutical Society. (I leave out of consideration the case of apothecaries.) The law, therefore, secures a monopoly of dispensing to a small body of men—numbering about 1,000, but it is distinctly contrary to common law to give any man, or body of men, a monopoly solely for their own profit, to exercise at their caprice. The monopoly of compounding granted to Irish pharmaceutical chemists is solely given for the benefit of the public—that they may know who are qualified to compound their medicines and so minister to their convenience, their comfort, and their safety. If, however, a party of men placed on a register and holding a monopoly of the supply of medicine should abuse their privilege and misuse that monopoly by refusing to supply any section of the public because they were Army men or ex-Army men, or because they were unpopular from any cause, or because they were on strike or not on strike, or for any reason other than that there was not a fair tender for the service demanded, then the State can no longer continue the monopoly; it can no longer give privileges to these men; their diplomas must be cancelled. It appears to me, then, that any corporation, like the Pharmaceutical Society of Ireland, working under Charter, or Act of the British Parliament, is not only bound by its essential constitution as to the conditions under which it shall issue certificates to act as a pharmaceutical chemist, but also conditions under which these certificates shall be retained. If, therefore, a man refuses the duties of compounding, he cannot retain the privilege of compounding. In British law every right connotes a duty. To refuse to compound for a Service man is to refuse an obvious duty to a servant of the State. The only effective method whereby the Pharmaceutical Society can insist on a licentiate doing his duty is to remove his name from the Register. I do not think specific powers are necessary; I think every such corporation has a power of expelling members whom it thinks unworthy. In any case, if the matter is sent before the Privy Council they will advise us if we have no powers. This seems to me one of the regulations which the P.S.I. is entitled to make under the Acts of 1875 and 1890, but which must be sanctioned by the Privy Council.

Yours truly,

Dublin.

J. C. MCWALTER.

SIR,—It was with indignation that I read the report of the motion which Dr. McWalter is to bring forward at the next meeting of the Council of the Pharmaceutical Society of Ireland—namely, "the removal from the Register of the name of any chemist found guilty of refusing to compound medicines for any member or ex-member of the Forces of the Crown, or for any person seriously ill." I have pleasure in supporting the protest of Mr. A. E. Ferris, M.P.S.I. My reasons for doing so are as follows:

(1) Because I do not believe that there is any necessity for this motion, which I consider to be a slur upon the honour of the profession.

(2) Seeing that the motion is in the name of a medical man (a Governor of the Apothecaries' Hall of Ireland, and ex-member of the Forces), I view the motion with suspicion as being but another attempt on the part of the medical profession to bind pharmacists more deeply in bondage to doctors. Herein lies the danger of packing the Council of the Pharmaceutical Society with medicos, who will naturally have more than the furtherance of the interests of the Pharmaceutical Society at heart.

(3) I consider that there are sufficient restrictions upon chemists, and more than sufficient regulations enveloping them.

I have every confidence in the old and tested members of the Council to turn down any attempts to promote further legislation, particularly as restrictions upon the freedom of the individual pharmaceutical chemist are contemplated by the motion in question.

Yours faithfully,

Larne.

ROBT. H. KERR, M.P.S.I.

Etymology of Manna.

SIR,—The etymology of manna is as puzzling as its botany. It can hardly be derived, as Mr. Holmes suggests, from the exclamation *mān hu*, "What is it?" for the Hebrew word is a simple biliteral, *m(d)n*, which the Talmudists explain as a syncope of the verb *mānāh*, to "award," allot," and therefore implying "a gift," though it is never used in that sense. Their theory receives some support from the fact that the corresponding Arabic form signifies (1) favour conferred, and (2) manna; but if, as seems likely, this latter meaning is a direct borrowing from the Hebrew, that support is a very weak one. Indeed, a certain school of critics, taking into consideration that *mān* is a biliteral (*i.e.*, consists of but two consonants, the vowel points being a late invention in Hebrew) instead of the usual trilateral, holds both the word and the story to have been lifted bodily from a non-Semitic folk-lore. By the way, *selau* (or, according to the Masorah, *selāiv*), a collective noun, is just the ordinary Hebrew word for quails, "the plump" birds, though rabbinical legend asserts that those sent to the Israelites were of a peculiar kind and boneless.

Yours truly,

L. (142/46.)

Chemists' Trade Unions.

SIR,—... Jay Mack is the Bernard Shaw of pharmacy. We know he is a very clever man because he has repeatedly assured us of this fact, but why, Oh! why does he not write down to the level of his more unsophisticated brethren's understanding? Is he for or against the progressive element on the Council? Or perchance, like his prototype, he has nothing but damntory phrases for his brethren of all shades of opinion, and commendation only for the enemy at our gates. Who are the "hot-air" purveyors? Are they reactionaries or progressives, or both? Who are the Jonahs and the "Shoneen" professors? Jay Mack is content, despite his self-asserted superiority, to ladle out blame lavishly and indiscriminately, smugly complacent because his business is 200 to 400 per cent. ahead of 1900. He can tell us all where we are wrong. Can he forget his Bernard Shaw pose sufficiently long to inform us as to the right road and reveal the identity of our heaven-appointed leaders? Constructive, not destructive, criticism is the urgent need of pharmacy to-day. Candidly, I am as sceptical as to the accuracy of his analysis of the position of pharmacy as to the reliability of his original and somewhat inane ideas on the question of the British working men's "olfactory" susceptibilities.

Yours faithfully,

J. R. H. (151/2.)

Legal Queries.

E. T. S. (141/53).—The addition of "and Son" to your trade name will not confer exemption from the requirements of the Registration of Business Names Act. It is necessary that the "true surnames of all partners" should appear in the trade name of a firm, and "Son" is not a surname. It is not difficult to devise a name that will not require registration, *e.g.* "E. T. and X. Z. Smith."

Swad (136/2) is tenant of a house under an agreement providing for the termination of the tenancy by a quarter's notice. On December 24 last the landlord sent to "Swad," by registered post, a notice terminating the tenancy on March 25 next. The notice was not received by "Swad" until the morning of December 26; is the notice effective? [The notice is not valid, as it was not served upon "Swad" on or before December 25. In any case "Swad" may be protected from having to vacate the house by the Increase of Rent and Mortgage Interest (Restrictions) Acts.]

Subscribers' Symposium.

For interchange of opinion among "C. & D." readers, and brief notes on business and practical topics, especially new ideas.

Appreciations.

"I cannot do without your paper, which is the best trade paper in our line. I have the Summer Issue of 1912; it is so valuable to me that I keep it in the safe."—*E. A. B.* (Philadelphia) (97/71).

"I have pleasure in enclosing subscription for the *C. & D.* for another year. I should feel out of touch of trade matters entirely if I did not find it in the letter-box every Saturday morning."—*A. S. R.* (218/33).

"I take great pleasure in renewing my subscription to *THE CHEMIST AND DRUGGIST* for another year. In looking back over the past five years at the various trials we have had to contend with, it is a pleasure to know that among those who, under trying circumstances, were able to 'carry on,' and are now firmly fixed in their respective places, the *C. & D.* can claim to be in the foremost rank. Again, in looking forward to another year, one can rest assured that if the *C. & D.* could keep its position as the chemists' friend in time of war it can be relied upon to do so in time of peace. Therefore I thank the *C. & D.* for 'services rendered' during the Great War, and wish it success for the future."—*E. D. G.* (214/33).

Preparation for Golfers' Hands.

Referring to the inquiry (*C. & D.*, December 27, 1919, p. 88) for a preparation to keep golfers' hands moist in cold weather, "*E. A. H.*" (136/41) writes: "The best thing is mucilage of tragacanth, double strength. This is put up in tubes, and before the war was sold at golf clubs at 6d. per tube."

Making Zinc Ointment.

Perplexed (136/35) writes: I find considerable difficulty in making satisfactory zinc ointment with the present supplies of lard. The lard I am using is of American manufacture, and the ointment, instead of being a nice stiff preparation, turns out quite sloppy; in fact, almost too thin to put into the usual tin boxes. I was wondering if any *C. & D.* readers have had similar experience, and whether they had been able to overcome the difficulty.

Business Essentials.

"The words in common every-day use in business life are 'system,' 'standardisation,' 'equipment,' 'organisation,' 'service.' Those five terms not only appear in their business dictionary, but are really and actively carried out."—*Mr. W. H. Saunders*, *C. & D.*, 1919, p. 1501.

"Five terms" are well practised, with zeal that's aglow,
By British Columbians, so travellers relate,
In a way that suggests they are quite up to date—
And perhaps in advance of "some people we know!"

By "Standardisation" we make it our care
That data be fixed; then we know to a "t,"
In this case or that, what the answer must be;
"Exact" every time, and "the same" everywhere.

Efficient "Equipment" to bring this about
(And much else besides) is a *sine qua non*;
Without it no business can hope to "get on,"
Because of "delays," "imperfections," and "doubt"!

With "System," no boldness of effort to "climb"
Will go unrewarded: adapt means to end;
If "Order" and "Method" and "Promptness" attend,
"Ascent" will be only a question of time"!

By "Organisation" you cunningly weave
A number of "systems" so close into one
Harmonious whole, that, when work has been done,
Each helped all the others success to achieve.

Then "Service," thus rendered, by head, heart, and hand,
Will yield "satisfaction" in ten thousand ways;
Soon, soon may it terminate these darkened days,
And spread cheering sunshine throughout every land!

H. J. Macmillan

Miscellaneous Inquiries.

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

R. L. C. (97/63).—BOOKS ON PERFUMES.—The following are the chief books on the manufacture of perfumes: "Pharmaceutical Formulas" (office of the *C. & D.*, 15s.); Askinson's "Perfumes and their Preparations" (Spon, 12s. 6d.); Piesse's "Chimie des Parfums et Fabrication des Essences" (Baillière, 4 fr.); Durvelle's "Nouveau Guide du Parfumeur" (Desforges, 5 fr.).

Brick (97/16).—PERFUME BRICKS.—There are various methods of making perfume bricks, the two bases being paraffin wax and plaster of Paris. In the case of paraffin wax, benzoic acid or benzoin is added, and a small quantity of solid such as magnesia, to make the wax opaque. Magnesia or kaolin is suitable, and provides a means of introducing the additional perfume. This is best in the form of essential oils. The amounts required for 6 oz. of wax are as follows:

Patchouli oil ...	... mxxv.
Petitgrain oil ...	... mxxx.
Santal oil ...	... 3ss.
Cedarwood oil ...	... 5ss.
Geranium oil ...	... 5ss.
Lavender oil ...	... 5ss.
Tonquin essence ...	... 5l.
Vanilla essence ...	... 5l.
Musk essence ...	... 5l.

The plaster of Paris basis is favoured by some makers of solid perfume. In this case plaster is used alone or diluted with an equal part of magnesium carbonate. The perfumes are incorporated and then water added to make into a cream. The blocks are cast into moulds in both cases.

F. W. F. (132/32).—MAGNESIA CEMENT.—The reaction between magnesia and magnesium chloride produces what is known as Sorel's cement, many adaptations of which are now employed as flooring and for making artificial stones. The end product is an oxychloride, but the exact composition is in dispute. The magnesia should be of the greatest density possible, and free from carbonate. It is generally produced from magnesite by moderate heating. The magnesium chloride is best employed in 80 per cent. solution. The cement is prepared by making magnesia into a paste with the magnesium-chloride solution, say 100 parts of the former to 90 parts of the solution. In practice, diluents, colouring, and hardening ingredients are added. For instance, 15 parts of precipitated silicic acid (by adding hydrochloric acid to solution of silicate of sodium) makes a very hard cement. Infusorial earth is almost as good. The powders must be well mixed before adding the magnesium-chloride solution. The mixture takes about ten hours to set.

J. V. C. (Rotterdam) (116/72).—We are unable to give further particulars regarding the Japanese celluloid substitute, but will keep your inquiry before us in case we can add to the information.

G. O. J. (121/49).—ICING SOLUTION.—This is added to sugar to make cake icing set quickly. It consists of a mixture of white of egg and syrupy glucose. The total solids, at 100° C., are 18.24 per cent.

L. G. S. (114/64).—The following are the specific gravities of the samples you send: Oxymel scillæ, 1.315; ext. glycyrrhizæ liq., 1.116.

W. R. (75/39).—FOWL-COLOURING LIQUID FOR SHOW-PURPOSES.—The sample you send of this preparation gives a bright brownish-red residue of iridescent character, amounting to 0.17 per cent. The chemical and general tests which we have carried out with the liquid show that it is a preparation of Brazil wood or dye-wood of similar character.

C. E. (48/43).—HAIR-WASH.—The quantity of the sample you send was too small to permit of a systematic analysis, but the chief analytical data and conclusions are as follows: Specific gravity, 0.9831; total solids, 0.48 per cent.; ash, 0.023 per cent. The liquid contains acetic acid and is free from sulphate, chloride, or metals, nor does it become cloudy with either alcohol or water. The presence of cantharidin was indicated, but somewhat indefinitely. From these data we conclude that a perfumed spirit with a small quantity of acetum cantharidini will fairly represent the sample.

A. T. (279/11) requires to prove the presence of small quantities of tin in the presence of large amounts of antimony or traces of aluminium in caustic soda. [For the former test the blow-pipe test for tin in the shape of a borax bead tinted with copper salt and heated in the reducing flame will detect tin very well, but the limit of sensitiveness has not been recorded. To detect aluminium in caustic soda we suggest the following: Take 5 grams of caustic soda, add slight excess of hydrochloric acid, evaporate to dryness, and heat to 250° F. for a few minutes to render any silica anhydrous. Then take up with dilute hydrochloric acid, add excess of sodium dioxide (Na_2O_2), and add pure litmus solution as a mordant and a clear saturated solution of ammonium chloride, setting aside for a few hours. Any coloured flocculent or transparent precipitate indicates the presence of aluminium.]

A. N. S. (140/29).—COUGH PELLETS.—The following is the formula for which you inquire:

Pine oil ...	... 2 oz.
Anise oil ...	... 1 oz.
Cubeb oil ...	... 60 m.
Menthol ...	... ½ oz.
Liquorice extract ...	... 1 lb.
Chocolate powder ...	... 6 lb.
Refined sugar ...	... 7 lb.

A. S. (140/36).—The home-made soap which will not lather is probably unintentionally super-fatted. In the case of hard water a slight excess of alkali is needed. The remedy would appear to be to re-melt the soap with a little more alkali. Perhaps you could ascertain what proportion of fat and alkali your customer used.

W. R. (142/24).—DISGUISED THE ODOUR OF TURPENTINE.—Oil of verbenæ, painters' terebene, have been suggested, but the suitability depends upon the uses to which the turpentine is to be put.

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Reprinted from "The Chemist and Druggist," Jan 15, 1870.

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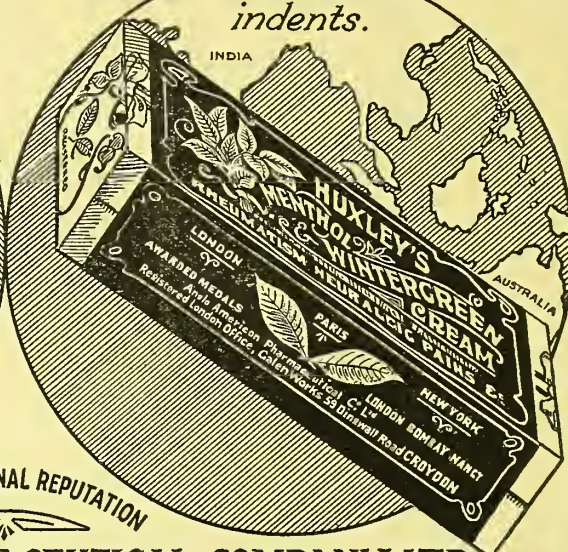
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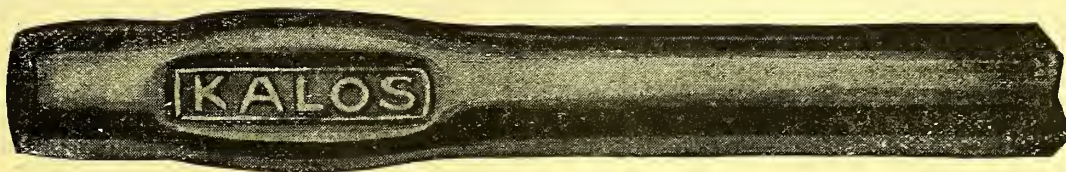
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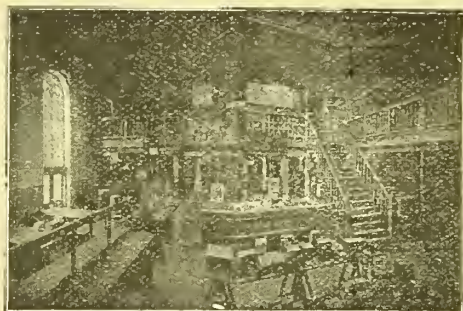
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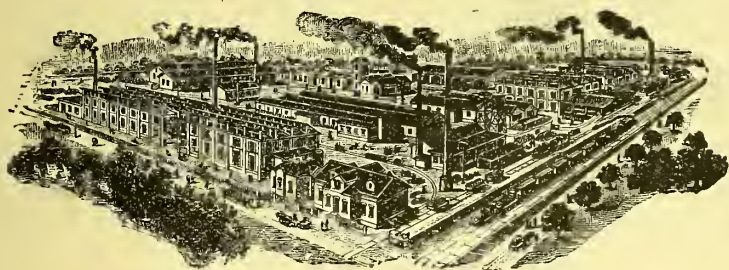
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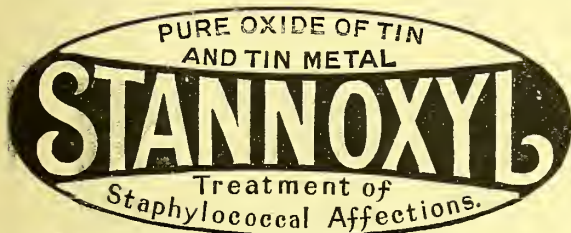


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ODOURLESS. TASTELESS.

Each 100 grammes of Valerianate "Gabail" contains:—

Extract of Valerian (French Codex)	...	10 grms.
Acid Valerianic	...	3 "
Ammonium Carbonate	...	g.s.

Whilst possessing the full medicinal value of
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In bottles containing 125 c.c. per bottle 3/4

" " " 250 c.c. " " 6/-

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Dose:—One teaspoonful.

ELIXIR BROMO-VALERIANATE "GABAIL"

In bottles containing 210 c.c. per bottle 3/9

Dose:—One tablespoonful.

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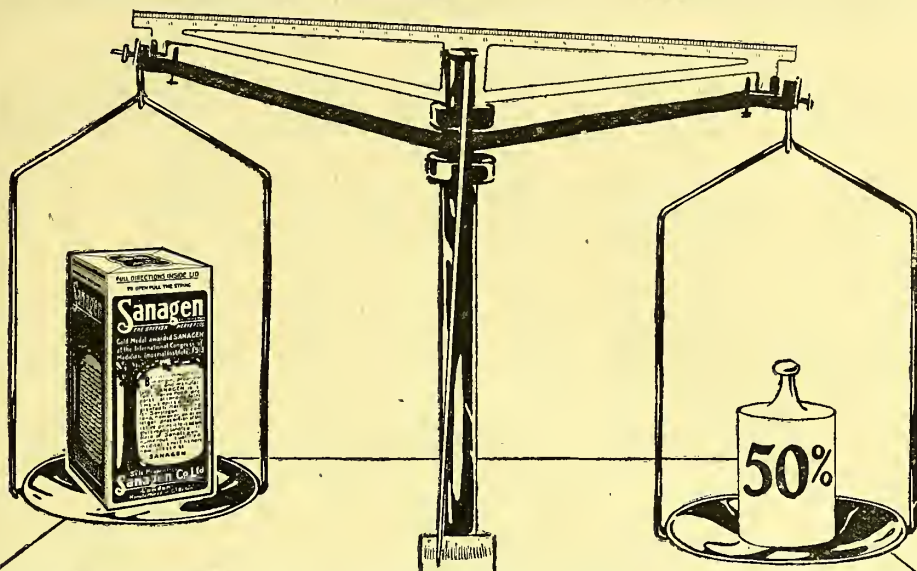
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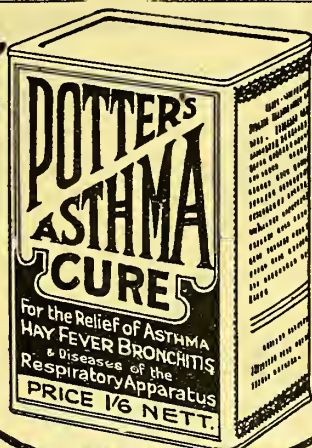
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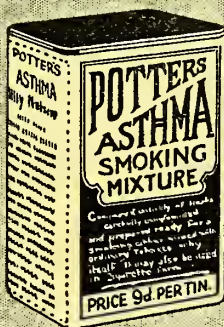
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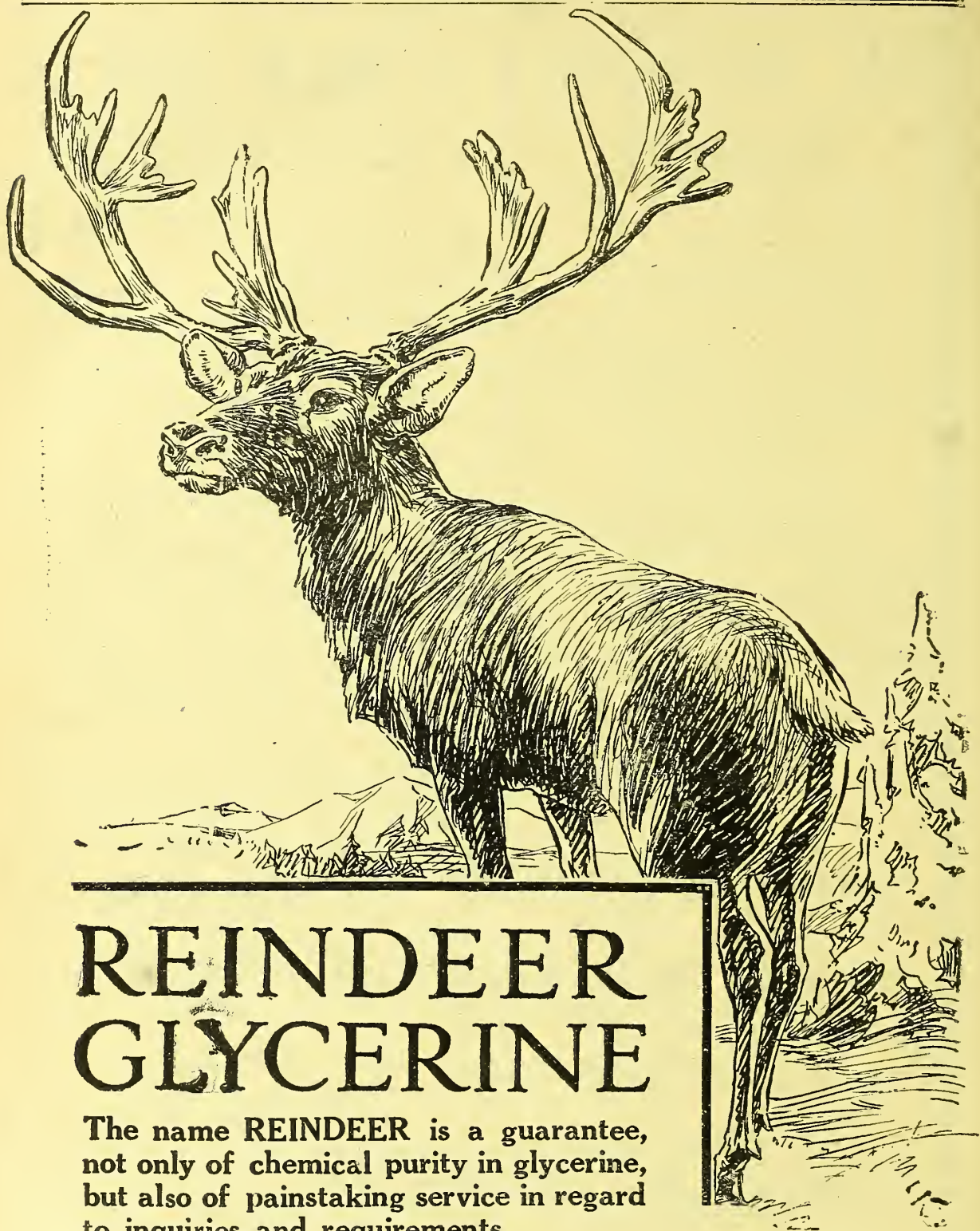
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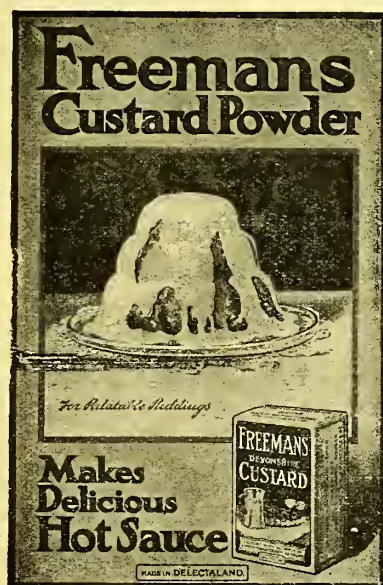


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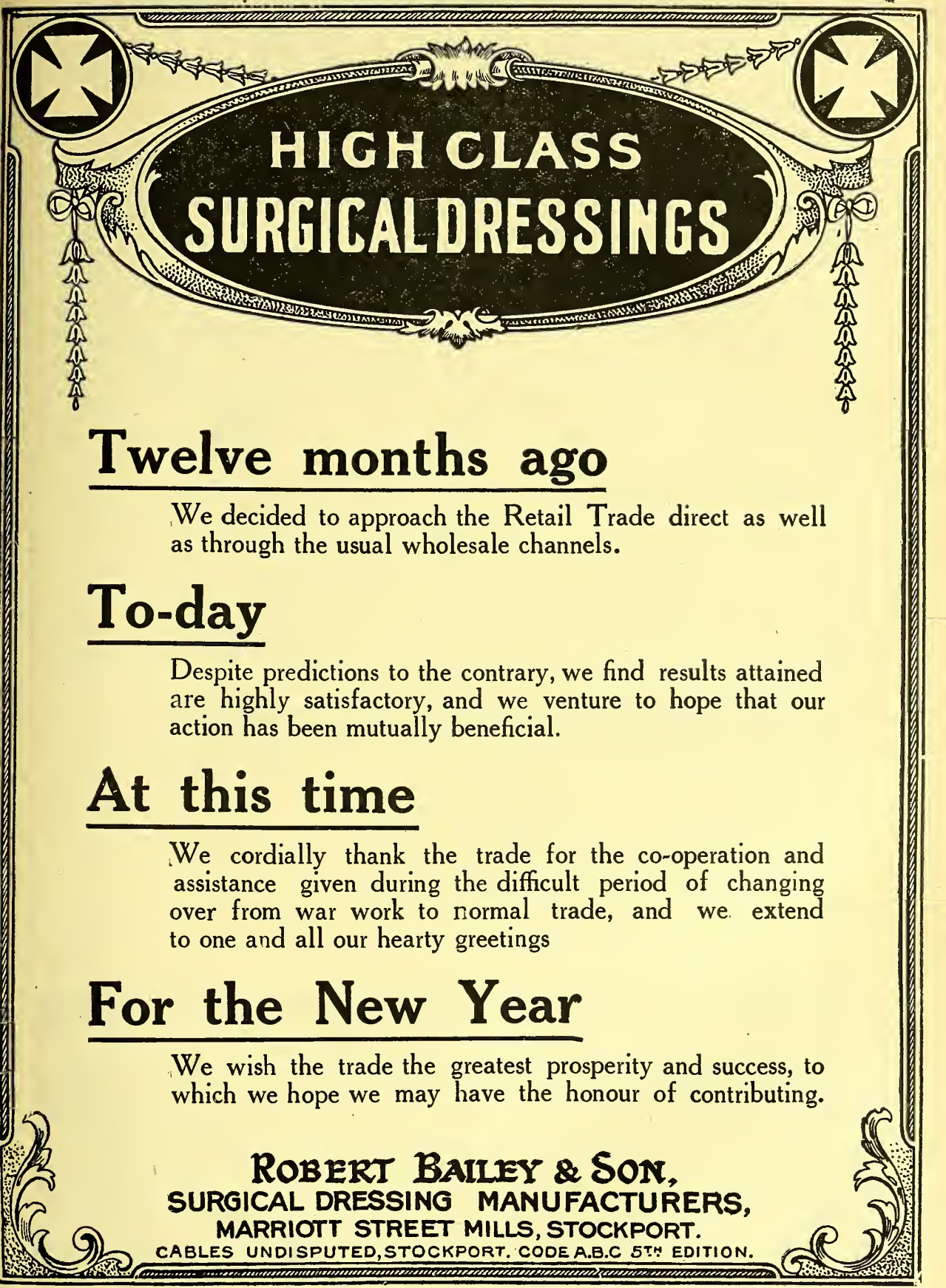
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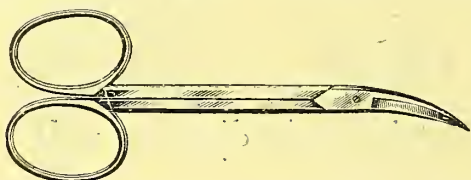
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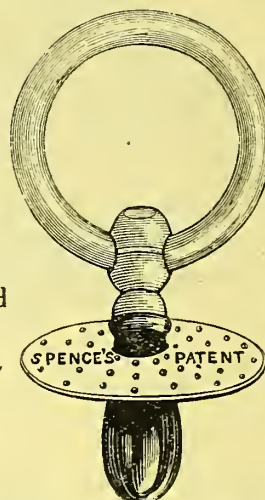


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Heavy weight	each	4 0	4 4	4 8	5 0	5 6	6 0	6 3	7 0
Covers, scarlet or grey plush	„	1 5	1 8	1 10	2 0	2 2	2 8	2 10	3 3

Fig. 1194. The "EMPIRE" Red Indiarubber Air Cushion.

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	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Circular Shape	each	8 0	9 0	10 0	11 0	12 0	14 0	16 0
Square shape	„	12 0	13 6	15 0	16 6	18 0	19 6	22 0

FIG. 957.—Side Handle.

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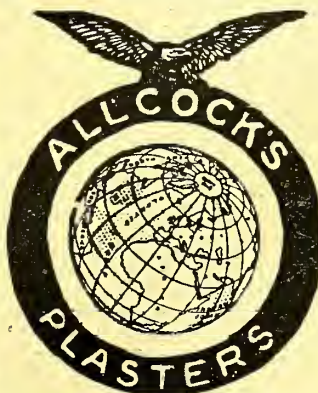
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2½d. each do. (loose powders)	2½d. ea.	20/-
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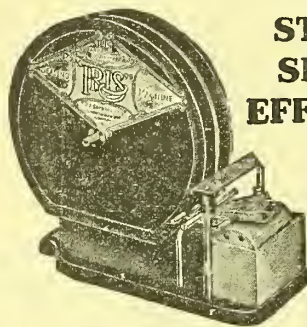
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15/6	1 cwt. " " "	15/6	12/6 "

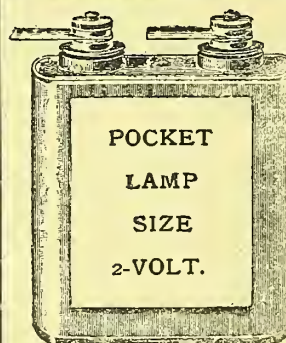
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The object of the Patent (No. 107940) Rubber Covered Screw Stopper is to overcome the loss of washer and leakage. A glance at Fig. 1 shows the sectional view, the black solid parts representing the rubber covering gripping (1) the brass flange making it a fixture, so that no loss of washer is possible the broad solid seating (2) when the stopper is screwed down renders it ABSOLUTELY WATERTIGHT. The effectiveness of the Patent Constructed Neck can be clearly seen by a comparison of Figs. 2 and 3. In addition to overcoming the old trouble of leaky necks, the new formation of the socket enables the bottle to be easily filled and without any fear of "splashing." The socket is also secured from working loose by an ingenious method, the rubber being connected in sections right through the brass socket, forming the neck and socket into one solid piece.

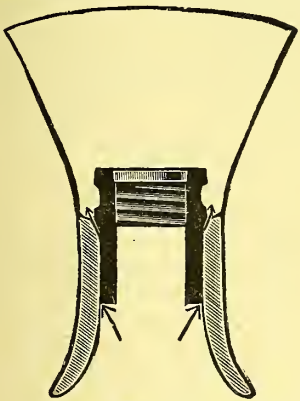


Fig. 2.
This sketch shows where, in course of time, the action of water permeates, between the brass socket and rubber, causing leakage.

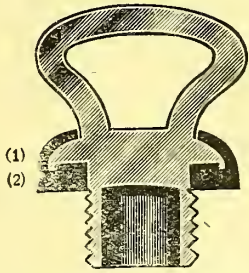


Fig. 1. Patent No. 107940

Size, inches
10x6 10x8 12x6 12x8 14x8 12x10 14x12 16x12

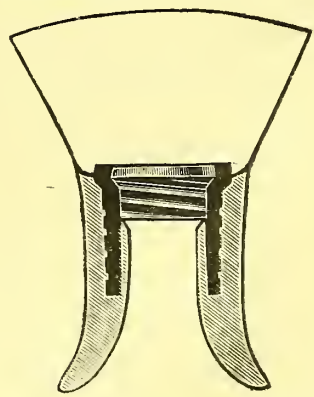


Fig. 3.
The Patent Constructed Neck (No. 118022) shows the brass socket embedded in rubber, rendering it now impossible for water leakage to occur.

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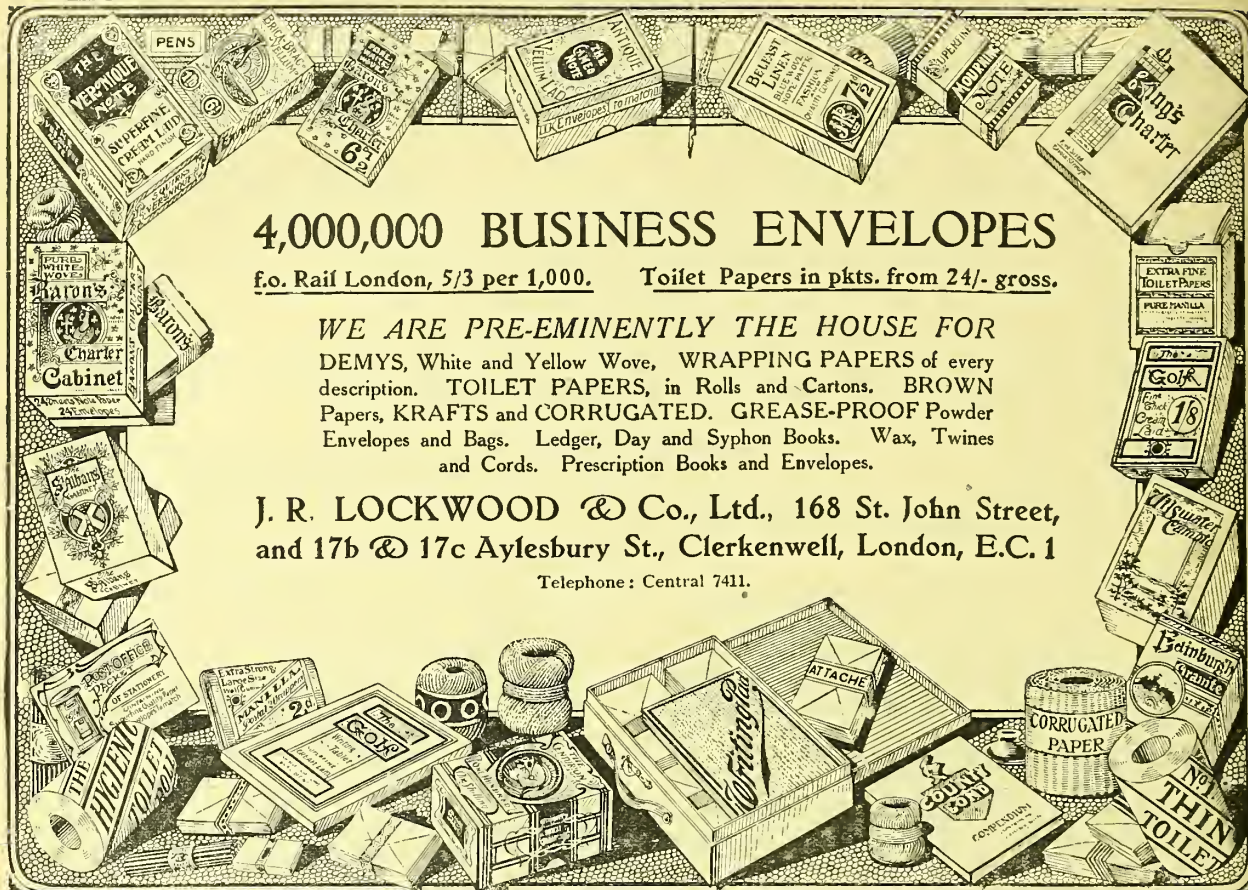
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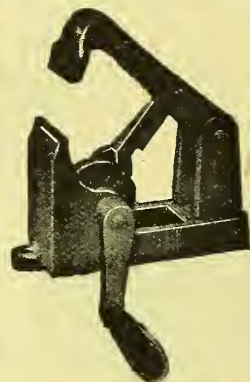
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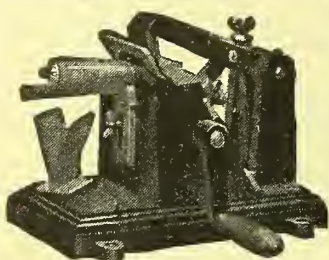
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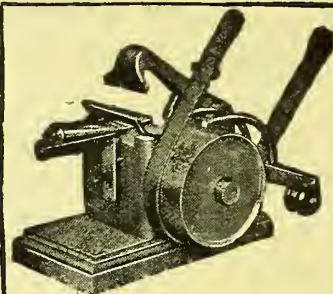
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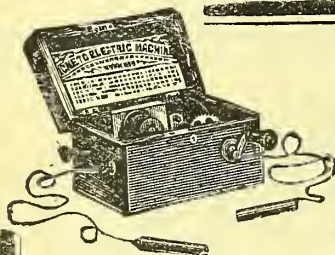
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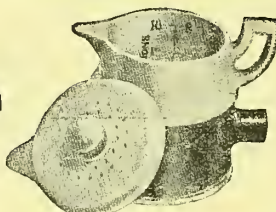
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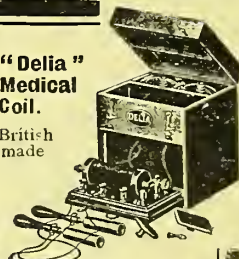
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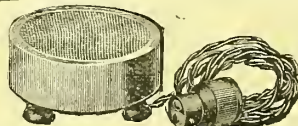


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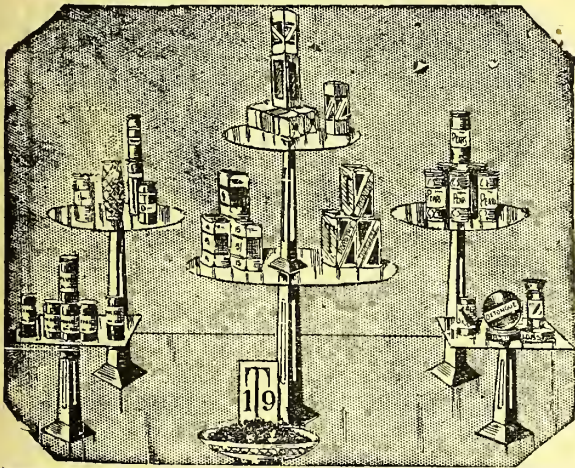


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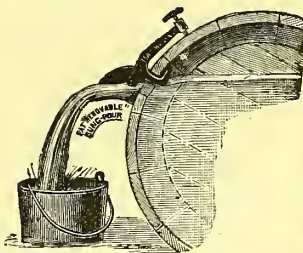
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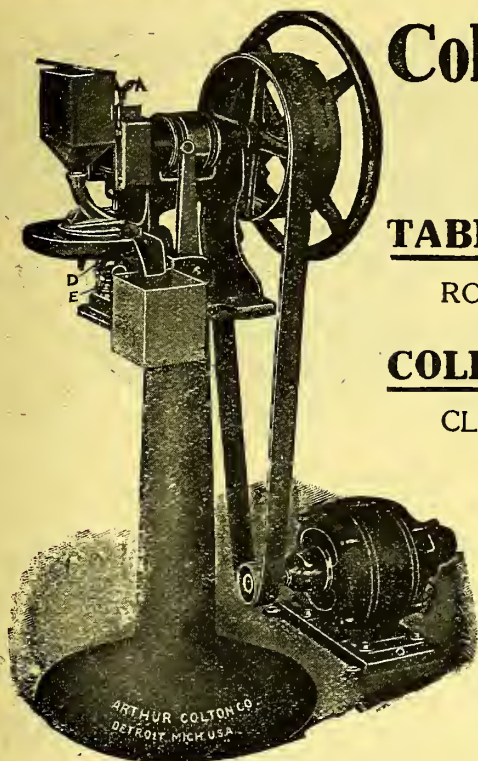
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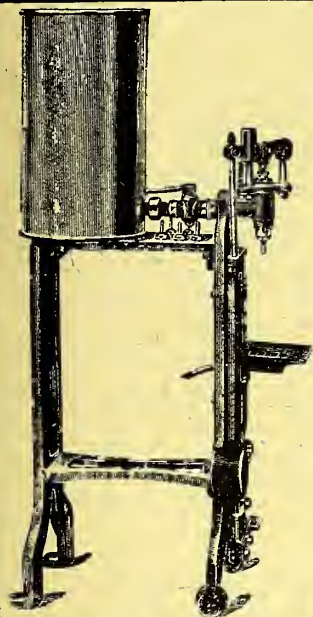
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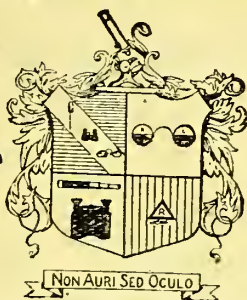
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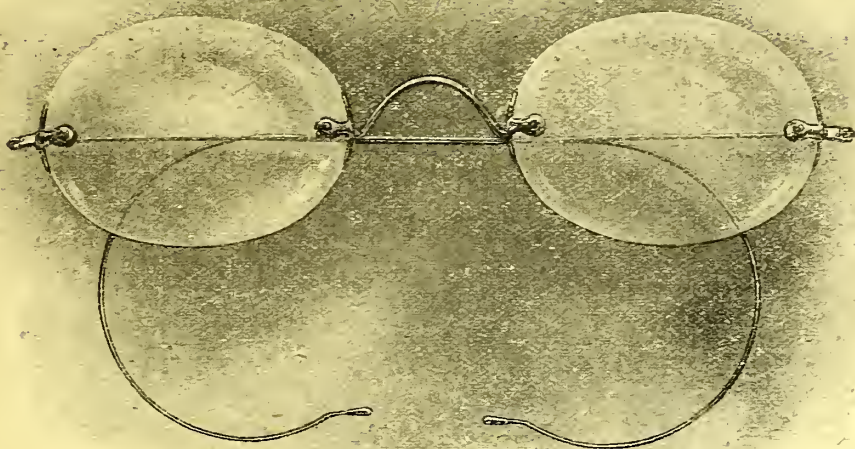


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42 CANNON ST.
LONDON, E.C.4.

JANUARY 10, 1920

This Supplement is inserted in every copy of The Chemist & Druggist

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The clerical work in connection with the posting of spare copies of the Coloured Supplement week by week has increased to such an extent that we have been compelled to reorganise our system of distribution. Our readers will please note therefore that, in future, instructions can be accepted for not more than six successive issues of the Supplement at a time, and that in every case

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9.—SOUTH COAST.—Ready-money Business, situate in main thoroughfare of an important business town; returns, present rate, about £3,000, at fair prices; price £2,000; vendor estimates value of stock and fixtures at £1,900.

10.—WARWICKSHIRE.—Old-established Business, Retail and Wholesale in Packed Goods; gross receipts exceed £8,000, and during the past 3 years the *gross profit* has averaged £2,031 per annum; the premises are held on long lease, at a rental of £60; price about £3,000; a banker's reference will facilitate business.

11.—WESTERN COUNTY.—High-class Dispensing and Retail Business; returns between £4,000 and £4,500 per annum; *gross profit* 45%; well-fitted shop; further particulars will be furnished on receipt of a banker's reference.

12.—SUSSEX.—Well-established Retail and Dispensing Business, capital situate in main thoroughfare; returns at the rate of £5,000 per annum; further details on application.

13.—MIDLANDS.—General Retail Business; returns for 1919 £2,707, at good prices; scope for extension under energetic management; excellent position and good working stock; further details on application.

14.—OXFORDSHIRE.—Unopposed Business, situate in pleasant country district; commodious shop, with good residence and garden; returns about £1,500; *net profit* 25%; price £650.

VALUATIONS FOR STOCKTAKING.

Messrs. O. & Co., desire to emphasise the necessity of a Periodical Statement of Account in which means alone Profit, the value of Business, &c., can be determined. Involving as this does the labour of Stocktaking and Valuation. It is often omitted and eventually becomes the cause of Confusion and loss.

Messrs. O. & Co., are prepared to undertake these essential duties, and will make **Special Terms** for such services.

ORRIDGE & CO., 56 LUDGATE HILL, LONDON, E.C.

BERDOE & FISH

VALUERS & TRANSFER AGENTS

35 Jewry Street, Fenchurch Street, E.C. 3.

Telephone 1809 CENTRAL.

NO CHARGE TO PURCHASERS.

1.—SUSSEX COAST.—Well-established Retail and Dispensing Business, returning £2,000; no Panel or Photo; good position; well fitted and heavily stocked; sole cause of sale, leaving the Retail; price £1,000, for quick sale—about valuation.

2.—SOUTH WALES.—Light Retail, Dispensing, and Prescribing Business, in healthy colliery district; quite unopposed; returns £1,650; no panel; low rent; good house and garden; modern, well-fitted shop, fully stocked; price £850, or valuation terms arranged.

3.—LONDON, W.C.—Good-class Retail and Dispensing Business; returns average over £2,000; *clear net profit*, £700; well-fitted Pharmacy, with residence attached; long lease; price £1,550.

4.—LONDON, S.W.—Good middle-class Cash Retail, entirely under manager; returns £1,500; *net profit* £500; main-road position; well stocked; rent covered by let-off; price £1,000.

INTENDING VENDORS

We are in immediate want of sound businesses in all parts of England, especially London, South Coast, S.W. and Western Counties, Midlands and Home Counties, at prices ranging from £300 to £3,000.

SALES BY AUCTION.

THURSDAY NEXT, JANUARY 15th, at 2.30 precisely.

MOORGATE AUCTION ROOMS, LD. (FRYETT, WHITE & CO.'s Successors) will SELL at their MART, 23 & 25 Moorfields, E.C.,

IMPORTANT STOCKS OF SOAPS,

TOOTHBRUSHES, Copying Pencils, Union Flannel Shirtings, Pearl Buttons, Suspenders, Housewives, Razors, Aluminium Forks and Spoons, Pocket Knives, Electric Torches, Batteries, Cigar and Pipe Lighters, Curbs, etc., comprising

800 CASES BAR AND TABLET SOAP,

Including Gossage's (3 lb. bars), Navy Blue Mottled, Rigby's 38-40% (3 lb. bars), Night Cap (12 oz. tablets), Vegetable Oil (2 cwt. cases), Savona 40-42% (2 cwt. cases), Cook's Crown pale No. 10 (1½ cwt. cases), Ogston & Tennant's 60-62% (2 cwt. cases), Ironmonger's 63-65% (2 cwt. cases).

300 GROSS TOOTH BRUSHES,

9 bales UNION FLANNEL SHIRTING,
400 gross Copying Pencils, etc., etc.

PARTNERSHIPS.

4s. 6d. for 50 words or less; 8d. for every addition 10 words or less, prepaid.

M.P.S. 33, experienced, well recommended, with business capabilities, desires active Partnership, or would manage with view to early succession; capital available. Apply 4/25, Office of this Paper.

PARTNERSHIP or Managership, view succession, in good-class Dispensing business, required by qualified Chemist; highest experience and references; capital immediately available £500; good living accommodation required. Replies in strict confidence to 7/3, Office of this Paper.

BROOMS AND BRUSHES.

AN advance in the price of Brushes is inevitable and the shortage of supplies of raw material is causing grave concern to Brush Manufacturers generally. The conditions in Russia preclude any possibility of supplies arriving except in very limited quantities, even if they exist in that country, which is uncertain, and the Brush Manufacturer is thrown back on Eastern Bristles. The price of these Bristles has advanced very considerably, which is due not only to the increased demand, the unfavourable condition of the Shanghai exchange, and the high price of silver, but to the fact that the United States, which is very large buyer, can in view of the present value of the pound sterling in New York pay what at pre-war parity is approximately 25% more than the English Manufacturer, with the result that Chinese Bristles have in the last six or eight months advanced on an average 75% in price, and certain sizes for which there is the greatest demand 100% to 150%. Even at these prices the Chinese market can only supply us with black bristles, with the result that the white and yellow bristles used for too brushes, the outsides of brooms, cappings of paint brushes, and sash tools, and the grey bristles used for the centres of broom and paint brushes, are almost unobtainable. Small quantities of stiff white Indian bristles suitable for hair brushes arrive from time to time, but are not nearly adequate to meet the demand of the trade, and these, too, in the past six months have increased in value to the extent of 75%, as apart from the demand the rupee is now worth 28. 4d., as against the pre-war value of 18. 4d. Native dressers, both in China and India, state that in view of the high price of silver they are receiving from England less than pre-war prices for their bristles.

It will be seen from the above that not only are very much higher prices for bristle brushes unavoidable, but that there is possibility of an actual and serious shortage of material which may make certain classes of brushes unobtainable.

Horsehair, too, is advancing steadily in price, and timber, which is an important item of raw material, has increased in price owing to the higher wages now paid in the sawmill industry.

The new rates of wages fixed by the Brush Trade Board will come into operation at the beginning of 1920. Except in a few departments these show a general, and in some classes, a very considerable advance on those now ruling, so that in a number of classes of brushware considerably higher prices are unavoidable in the near future.

T. M. TILL, Secretary.

British Brush Manufacturers' Association.
21 Bucklersbury, E.C. 4.

FOR SALE.

The Advertiser may, if preferred, have replies addressed to this Office, and forwarded on payment of an additional charge of 6d.

EXCESS STOCK FOR SALE.—1 lb. Ext. Bellad. Liq. B.W. & Co. 98 B.P.; 1-oz. Ammonol; lot spectacles and Eyeglasses, silverine and goldline frames, stock numbered; also Cases and Showcards; cost £5; 500 Lantern Slides; what offer for whole or part. Sinclair, Chemist, Greenock.

SHOP Fittings, including Shelving, Cornice, Desk and Case combined, Counter with case front, Cupboards, Lockers, Show Rounds and Jars, Carboys, Window Enclosure, nest of Lab. Drawers, etc., Pill Machine, Counter Scales, Glass Shelves and Brackets; low but reasonable price required. May be viewed at 3 Station Parade, Kew Gardens.

SHOP Fittings equal new, 12 ft. mahogany Drawers, two sections, glass labels and knobs, mahogany Lockers and Shelving with Cornice, complete with recess labelled Shop Round and dome-top Ointment Jars; 10 ft. mahogany Counter, easily reducible, with front Showcases, nest Drawers underneath, heavy glass Counter Case, Desk, Perfume Case, 6 ft. mahogany Dispensing Screen, Wall Cases, etc. Apply 7/13, Office of this Paper.

TO CLOSE A TRUST.—The Stock and Fittings of a well-fitted Pharmacy for Sale, all in good condition; no reasonable offer refused. Apply Exors. of late E. Guy, 28 Eign Street Hereford.

WHAT Offers?—½ lb. Sem. Colchici; 4 lb. Rasse. Santal. Rub. 2 lb. Hyd. Perchlor.; 3 drams Atrop. Sulph.; 4 lb. Cupri Acet. Pr.; 2 lb. Pot. Ferro. Cyan.; 1 oz. Thioal.; 4 lb. Grain of Paradise; 3 lb. Gum. Benzoin.; 1 lb. Res. Guaiaci; 1 lb. Gum. Ammon.; 6 lb. Pr. Rad. Galangal.; ½ lb. Pr. Fol. Bellad.; ½ lb. Pr. Hyoscy.; ½ lb. Fol. Stramon.; ½ lb. Fol. Lobelia; 1 oz. Spirosal.; 1 oz. Mesotanol.; 18 1-pt. blue Syrup Bottles; 1 lb. Maiois; 4 lb. Cort. Berberis. "Statim" (276/36), Office of this Paper.

BUSINESSES WANTED.

4s. 6d. for 50 words or less; 6d. for every additional 10 words or less, prepaid.

The **Advertiser** may, if preferred, have replies addressed to this Office, and forwarded on payment of an additional charge of 6d.

LANCASHIRE.—Business, with living accommodation, wanted by Unqualified; lock-up or neglected considered, or would manage with a view to early succession; state rent, turnover, position, price or approximate, etc. (treated with strict confidence). E. H., 6 Langham Road, Blackburn.

LONDON or near.—Business wanted in busy thoroughfare; cash waiting. Vivian, 145 Petherton Road, N.

LONDON Suburb, S., S.E., or S.W., within ten miles of City; pre-war turnover not under £1,200; early date or can wait; good house accommodation, or lock-up shop with available private house near; moderate rental and good lease. Address "Pharmacist," Osborne House, Heath Street, Stourbridge, Worcestershire.

MIDLANDS, North England, or South Scotland; in busy industrial centre preferred; good going Pharmacy; Photographs and Optics not objected to or Drug Store capable of expansion under qualified management; house accommodation an advantage. State turnover, rent, lease, reason for disposal, probable price, etc., in strictest confidence, to "Clan" (271/10), Office of this Paper.

ADVERTISER requires Retail Business; Lancashire or Yorkshire; turnover not less than £1,500; please state price, rent, rates, lease, reason for disposal, etc. "L. or Y." (271/70), Office of this Paper.

GENERAL Retail Business wanted within about 10 miles radius of London; one where an Assistant is kept; cash available £1,500 to £2,500; partnership entertained; references exchanged. Please send full particulars in strict confidence to "Pharmacist" (7/22), Office of this Paper.

GOOD-CLASS Retail Business, with suitable house attached; turnover not less than £2,500; any part of the country; good price given for a sound concern in centre of an industrial inland city or town. Preliminary particulars to 4/30, Office of this Paper.

GOOD-CLASS Business wanted on South Coast or in provincial town in South of England; returns about £1,500 to £2,000. Particulars in confidence to 8/36, Office of this Paper.

WANTED, Chemist's Business, South Coast town, modern house, with turnover about £1,500. "H. E.," 13 Holdenhurst Road, Bournemouth.

AGENCIES.

4s. 6d. for 50 words or less; 6d. for every additional 10 words or less, prepaid.

AUSTRALASIA.—Advertiser re-visiting Australia and New Zealand, representing well-established British firm, would like to correspond with one desiring similar services; will be willing upon Importers, Chemists, Grocers, Storekeepers, etc.; could superintend advertising, distribution of samples; highest references. Apply P. C. B. 23/59, Office of this Paper.

FIRM, with own Travellers calling on Chemists, Confectioners, Farmers, and Grocers, is open to take up good-paying and reliable lines on commission; Eastern Counties. Apply 5/4, Office of this Paper.

GENTLEMAN calling on Chemists with his own lines, not a "push and go" Salesman, is willing to take up other small lines that will not compete with present ones; London area. Apply 280/15, Office of this Paper.

REQUIRED, Agent on commission basis for Midland Counties; state firms already represented. Whitaker & Co., Colours, Kendal.

REQUIRED by firm of London Manufacturing Chemists, Agent, a good provincial connection essential, to introduce paying decline to provinces; wide scope desired; liberal commission to right man. Apply by letter, stating ground covered, to 8/30, Office of this Paper.

BUSINESSES FOR DISPOSAL.

4s. 6d. for 50 words or less; 6d. for every additional 10 words or less, prepaid.

The **Advertiser** may, if preferred, have replies addressed to this Office, and forwarded on payment of an additional charge of 6d.

LONDON, N.—Old-established Pharmacy, corner of busy thoroughfare, at present carried on by unqualified as Cash Drug Stores; rent on lease £60, and rates, etc., £21; portion sublet (leaving for living accommodation parlour, two front rooms, basement, kitchen, and servant's bedroom), £129; showing profit rent of £48 per annum; turnover £15 to £20 per week; energetic, qualified man with little capital could easily double; fixtures, fittings, and stock valued about £350; price for cash £700. Apply P. C. B. 24/2, Office of this Paper.

CHEMIST'S Business; turnover £2,500, without N.H.I.; could be substantially increased under personal management; scope for Dental and Optical; the latter has been £1,000 a year; price with premises and stock about £3,000; cash only. "Enero" (6/36), Office of this Paper. Will advertiser kindly send his name and address to this Office.

FOR immediate disposal, high-class Cash Retail and Dispensing; good Proprietaries; sea front; interview only. Vint, White Rock, Hastings.

ON G.E. Main Line, 2½ hours from London, an old-established Family and Prescriber's Business; returns last two years exceed £1,200 per annum; well-fitted shop, good house and garden; owner retiring; vendor's own property all for disposal; only bona-fide purchasers dealt with; banker's reference exchanged. Apply 2/28, Office of this Paper.

APPRENTICESHIPS.

APPRENTICE.—A well-educated youth required (at once) in a good-class Family business; must have passed the Preliminary or its equivalent; time off allowed for attending lectures and study; sleep out. Apply to David Anderson, Chemist, Crouch End, N. 8.

APPRENTICESHIP.—Young lady (18) wishes to become apprenticed to Retail Chemist; London or suburbs preferred. Apply P. C. B. 25/4, Office of this Paper.

SITUATIONS OPEN.**RETAIL.**

4s. 6d. for 50 words or less; 6d. for every additional 10 words or less, prepaid.

The **Advertiser** may, if preferred, have replies addressed to this Office, and forwarded on payment of an additional charge of 6d.

BECKENHAM, Kent.—Capable Lady Assistant for the Dispensing department; outdoors. Please send full particulars of experience, salary required, etc., E. R. Jones, Chemist, Beckenham.

BEVERLEY.—Assistant Junior; good experience in Dispensing and Counter work; good hours; no Sunday duty. Apply, stating experience, salary, and photo if convenient, J. G. Anderson.

KENSINGTON.—Assistant required (male) in good-class Dispensing and Family business; must have had good experience. Full details and salary required (and if possible enclose photo) to W. Ive, 221 High Street, Kensington, W.

KENT.—Qualified single gentleman as Manager, with some knowledge of Agricultural Chemistry; small Village Pharmacy near Maidstone; no Sunday or holiday duty; moderate salary and comfortable home. Apply, with full particulars, 9/15, Office of this Paper.

LIVERPOOL.—Advertisement last week's issue under "H. L." c/o Lomax, Limited. As the number of applicants was so great as to make impossible a personal reply to each one, will those who applied accept this notice of declination of their offers of services, as the position is filled, with thanks. Harold Lomax.

LIVERPOOL.—Energetic, qualified man; Dispensing and Counter; usual hours. Full particulars to "S. L.," 15 Mulgrave Street, Liverpool.

LIVERPOOL.—Qualified Manager required (end of month) in good-class Dispensing business; Buying experience essential. Applications, stating age, experience, salary, etc., to 25 Moscow Drive, Stoneycroft, Liverpool.

LONDON (near City).—Good, smart, unqualified Assistant; Prescribing, Dispensing, Photo; splendid opportunity for gaining valuable experience. Apply Morton's Cash Chemists, Ltd., 199 Portobello Road, Notting Hill, W.11, giving full particulars, by letter, or personally between 10 o'clock and 1 o'clock Saturday morning.

LONDON, N.—Junior Assistant (male) wanted immediately; good medium-class business; whole or part time. Full particulars as to age, height, experience, references, and salary required, which must be moderate, to "Alpha," 169 Hemingford Road, N.

LONDON, N.W.—A Junior Assistant (male) required for good-class Light Retail and Dispensing. State usual particulars as to age, experience, salary, etc., to Stevens, 38 Heath Street, Hampstead.

LONDON, S.W.—Capable and experienced Assistant wanted for Retail and Dispensing business; must be accurate Dispenser and with good knowledge of Counter work. Apply, stating experience, salary required, etc., Lloyd, 267 King's Road, Chelsea, S.W. 3.

LONDON, South.—Junior, about 20 to 25, to take charge and work up Photographics and assist at Stock and Counter in a live business; preference given to a good Window-dresser. Give full particulars as to experience, age, salary, etc., to "Push," c/o Hayes & Co., 42 Bedford Hill, Balham, London, S.W.

LONDON, W.—Assistant wanted for Counter and Dispensing; one with West-End experience preferred. Apply the Manager, Heppell & Co., 26 Piccadilly, London, W. 1.

LONDON, W.—Experienced Junior for first-class Dispensing business; must be quick and accurate dispenser; age about 24 years. 8/27, Office of this Paper.

LONDON, W. 2.—Required for Patent Medicines and Toilet Articles Counter, smart young lady; good experience. Apply E. C. Evans, Pharmacist, Whiteley's, Ltd., 39 Westbourne Grove, W. 2.

MANCHESTER.—Good Junior wanted (at once). State full particulars, with salary (outdoor) to Henry Tinker, 104 Claremont Road, The Heights, Manchester.

NELSON.—Assistant (unqualified) wanted; used to busy Counter and Dispensing business; must be energetic and experienced; good references required. Apply, stating age, height, and salary required, to Hartleys, Chemists, Railway Street, Nelson, Lancashire.

SMETHWICK.—Wanted, Junior or Improver, about 19 years old. State experience, salary, etc., and give reference in first letter, to H. M. Tranmer, 42 High Street.

DISPENSER required for a small Hospital; afternoons 2-5 (except Saturdays, 9.30-11). Copy of testimonials and salary required to Miss Hasenecker, 5 Willoughby Road, Hampstead, N.W.

EXPERIENCED lady Assistant wanted for branch business, South Wales colliery district. Apply, stating experience and salary required, to "C." (277/26), Office of this Paper.

JUNIOR (male) wanted for good-class Dispensing business near Birmingham. Usual particulars to 276/39, Office of this Paper.

JUNIOR Assistant required (immediately); outdoors; easy hours; please state age, height, references, experience, salary, and when disengaged. Young, Chemist, Nantwich.

JUNIOR Assistant wanted in colliery district; short hours. State salary required (outdoors) and full particulars, Llewellyn, Chemist, Ogmere Vale, South Wales.

MANAGER required shortly for country business in Gloucestershire; Agricultural and Photographic experience desirable; live on premises; easy hours. State full particulars in first instance to Arnold Roberts & Co., 171 High Street, Acton, W. 3.

MANAGER (qualified) wanted for Dispensing business; married man; house free. Apply, with full particulars as to age, height, experience, references, and salary required, to A. E. Coverdale, Pharmaceutical Chemist, Worcester.

MANAGER, qualified, for Branch (London); N.H.I. Dispensing, store trading; comfortable berth; permanency. State full particulars in first letter, including salary required, to "Branches" (9/5), Office of this Paper.

QUALIFIED Manager for busy Branch; Sight-testing experience an advantage. State age, height, experience, and salary (outdoors), in first letter, to Waller & Riley, Ltd., Bolton.

QUALIFIED; N.W. London; quick and accurate Dispenser; good Counterman; 48 hours weekly; no Sunday duty; permanency; outdoors. P. C. B. 24/33, Office of this Paper.

QUALIFIED Senior wanted in Dispensing business, about 30 miles from London; good experience necessary, with ability to control staff; an interest in the business would be offered to a suitable applicant. Apply, with full details of experience, salary required, etc., to 10/28, Office of this Paper.

QUALIFIED, age about 30, for large go-ahead business, South London; must be experienced in modern pushing business, with view to taking over full control in the near future; good and increasing salary and every facility given to the right man, and an interest in the business would be considered later. In reply, please give usual particulars as to age, experience, references, salary, etc., to 9/17, Office of this Paper.

QUALIFIED Assistant for high-class West-End business; hours 9-6.30; no Sunday duty; Saturdays 1 p.m. Apply, stating salary required, to P. C. B. 25/23, Office of this Paper.

SURGICAL Instrument Business; Assistant Saleswoman. State duties accustomed to, age, and wages expected, Box "F 237," Lee & Nightingale, Advertisement Offices, Liverpool.

WANTED, smart young qualified Manager for branch near Oxford Street; knowledge of French preferred; wages and commission. Apply H. Lester, M.P.S., 64 Great Titchfield Street, W. 1.

WANTED (at once), unqualified Assistant for Counter and Dispensing; abstainer preferred; give full particulars of experience, references, salary required (outdoors), etc. Walker & Harris, Ltd., Canterbury.

WANTED, an Assistant, used to first-class Retail and Dispensing. Apply, stating the usual particulars as to experience, age, height, and salary required, enclosing photo if possible, to 8/9, Office of this Paper.

WANTED (immediately), elderly registered Chemist, or part-time qualified Assistant; lady or gentleman; easy hours; salary moderate; in- or outdoors. Apply M., 37 Park Hill, Clapham, S.W.

WANTED, Junior Assistant; must be good Dispenser. Apply Chemist, 51 Fairfax Road, South Hampstead, London, N.W.

WANTED, qualified Chemist (abstainer) for Branch Shop at East Ardsley, near Wakefield; no Sunday duty; 48-hour week; close 11.50 a.m. Tuesdays, 6 p.m. Saturdays. Apply at once by letter, giving all particulars, to Secretary, Industrial Co-operative Society, Ltd., Albion Street, Morley, Yorks.

WANTED (immediately), French-speaking Assistant, unqualified; with West-End experience preferred. Apply the Manager, Heppells, 78 Strand, W.C.

YOUNG Junior (male) for quick Retail and Dispensing; no Sunday duty; 50s. weekly. The Prosser Roberts Co. Pharmaceutical Chemists, 323 Walworth Road, S.E.

WHOLESALE.

4s. 6d. for 50 words or less; 6d. for every additional 10 words or less, prepaid.

A LONDON firm of Wholesale Chemists manufacturing high class Pharmaceutical preparations desiring to greatly extend their business require the services of a fully-qualified Chemist and Pharmacist capable of organising and supervising the manufacture of all preparations in their Laboratory, tending those with large experience in a similar capacity need apply; good and progressive salary to a suitable man with original ideas. Apply in confidence to "Experientia" (144/40), Office of this Paper.

ADVERTISING.—Large London firm has a vacancy in its Advertising Department suitable for recently qualified Pharmacist with taste for writing and compiling advertising matter. Send full particulars of age, qualifications, previous occupation, etc., to 145/34, Office of this Paper.

CHEMIST, experienced in the manufacture of Celluloid and Spirit Gum Lacquers and Varnishes required by London firm. Address "Z. K. 361," c/o Messrs. Deacon's, Leadenhall Street, E.C.

CHEMIST, qualified, not over 35, in Wholesale Druggists', to take charge of department. Write particulars and wages required, to A. V. A., Dakin Brothers, 82 Middlesex Street, E.1.

DRY-FLOOR Foreman required in Export Wholesale Druggists'; wages 78s. to 85s. per week, according to experience and capacity. Full particulars to 146/12, Office of this Paper.

MALE Supervisor for department packing Chemists' Specialities, South Coast; should have some knowledge of Drugs and experience in handling products; must possess energy and organising ability and understand the management of girls. Full particulars and wages required to 146/44, Office of this Paper.

PROGRESSIVE, reputable firm of Manufacturing Chemists require young Pharmacist, qualified, bachelor, as Representative; experience not essential, but applicants should have the necessary qualities for success as Medical Interviewer and Salesman; territory includes portions of England and Ireland. Apply letter, send photograph, and give full particulars of experience, age, height, and commencing salary, to "E. W." (7/28), Office of this Paper.

REPRESENTATIVE required for sale of Spirits of Wine; only those already representing important Wholesale Druggists need apply. "Distillers" (P. C. B. 24/3), Office of this Paper.

REPRESENTATIVES (commission), England, Wales, and Scotland; attractively packed specialities, showing Chemist's profits; state ground covered, 140/32, Office of this Paper.

SALESWOMAN wanted, good appearance, with a clear skin, for special Toilet Preparation. Apply, by letter in the first instance, to the Luckstone Company, 118 Crawford Street, Baker Street, W. 1.

TRAVELLER required to call on Chemists, Drapers, Fancy Stores, etc.; must have previous experience; state full particulars of same, salary commission; guarantee necessary. Write Merit, Box 601, Willings, 125 Strand, London, W.C. 2.

TRAVELLER wanted (immediately) by high-class Soap and Perfumery manufacturers for South and East Coasts; only applications from young, energetic men with previous experience and live connections entertained; salary and commission. Apply, giving full particulars, to 136/16, Office of this Paper.

TRAVELLERS wanted for the whole of England and Wales for a quick-selling line with Chemists and Drug Stores; commission only. Apply, stating ground covered, etc., to Birmingham" (270/18), Office of this Paper.

TRAVELLERS required on the following grounds, on commission basis only, for a strong selling side-line, very little competition, splendid opportunity for energetic Salesmen: Lancashire, Yorkshire, Staffordshire, London, and Birmingham and district. All particulars to 6/25, Office of this Paper.

TRAVELLERS wanted for a largely advertised Patent Medicine; good commission paid those Salesmen with approved large connection amongst Chemists; only those representing reputable firms entertained. Write full particulars to "V. N.," 30 Belsize Park, N.W.

TRAVELLERS Required

for

Gloucestershire, Devon,
Eastern Counties, Bedfordshire,
Kent, Wiltshire,
Dorset, Surrey,

S.W. LONDON,
etc.

and Salesmen, with established connection among Chemists and to push WELL-ADVERTISED, profitable, and attractive line on good commission. Apply, stating ground covered and references, to 8/28, Office of this Paper.

WANTED, by firm of Wine Merchants and Food Packers, smart, tactful man, about 30 to 35 years of age, with experience, as Representative, must have good organising ability, and have practical knowledge and experience of inside management, to take joint position of Sales Manager and Assistant Works Manager. Apply 271/11, Office of this Paper.

WANTED, Assistant, to take working charge of Surgical-instrument and Sundry Department, with some knowledge of the filling of Surgical Appliances. Apply, stating age, previous experience, and salary required, to 7/38, Office of this Paper.

WANTED, a thoroughly practical man with experience in the manufacture of liquefied Cyanide Gas, and capable of taking entire charge; good salary to good man; permanency ensured. Apply "S. R. C." (137/12), Office of this Paper.

SITUATIONS OPEN.

(Colonial, Indian and Foreign.)

4s. 6d. for 50 words or less; 6d. for every additional 10 words or less, prepaid.

BRITISH WEST INDIES.—Wanted, for large Wholesale, Retail, and Dispensing Chemists, unqualified Junior, not over 24, with brisk country experience; candidates must be physically fit to stand work in tropical climate; three years' agreement; passage paid out; good opportunity for energetic young man to gain thorough insight into Colonial business methods. Apply, stating age, experience, and salary required, to "B. E. M.," c/o Ayrton, Saunders & Co., Ltd., 34 Hanover Street, Liverpool

CEYLON.—Chemist, Dispensing, qualified preferred, age 22-28, single, wanted for first-class British business in Ceylon; four years' agreement; passage paid; liberal salary to smart man with good-class Retail, Dispensing, and Counter experience. Give full particulars of experience, stating whether qualified or unqualified, and present salary, to P. C. B. 24/18, Office of this Paper.

FAR EAST.—A qualified Assistant, not over 30 years of age; must have had experience in first-class Retail and Dispensing business; salary £550, rising to £600 per annum, and passage paid out and home, on a four-years' agreement. Address "East" (4/28), Office of this Paper.

PARIS.—Qualified Assistant; knowledge of French and Continental experience; outdoors; short hours; no Sunday or night duty; state age, experience, references, and salary required in first letter; permanency, with good prospects, for suitable man; send photograph, which will be returned. Roberts & Co., 5 Rue de la Paix, Paris.

RHODESIA.—An opening for a young qualified Assistant who has had good Dispensing experience; prospects good and climate delightful; cost of living reasonable, excellent board costing about £10 per month; three years' agreement; passage paid out; salary offered £27 10s. per month for the first year, £30 per month for the second, and £32 10s. for third, with furnished bedroom. Apply by letter only to "C. M. N.," 25 Arrol Road, Beckenham, Kent.

SHANGHAI.—Chemist wanted for British Merchant house in Shanghai, well qualified to manage Dye, Drug, and Chemical department; thorough practical knowledge essential, especially in dyes; good prospects for suitable man. Reply, giving full particulars, to China (8/35), Office of this Paper.

STRAITS SETTLEMENTS.—Assistant, unmarried, with Chemist's qualification, a good knowledge of Optics desirable; four years' agreement; passage paid out and home; salary first year £420, second and third years £455, fourth year £490. Apply 140/34, Office of this Paper.

We desire particularly to draw the attention of Colonial and Foreign Subscribers to the fact that in cases where they require partners, agents or assistants, or wish to sell their businesses, an advertisement in this Supplement, placed in every copy of "The Chemist and Druggist," should be the readiest means of helping them to attain their object. The tariff for such announcements is given under the appropriate headings in the Supplement. Instructions and remittances can be sent to us direct or through the advertisers' correspondents in this country.

SITUATIONS WANTED.

1s. for 12 words or less, 6d. for every additional 10 words or less, prepaid.

[HOME.]

RETAIL.

The **Advertiser** may, if preferred, have replies addressed to this Office, and forwarded on payment of an additional charge of 6d.

A CAPABLE Assistant; 32; unqualified; 15 years' Dispensing and Counter experience; Photography (late N.C.O. Dispenser, Military Hospital); good references; disengaged. "Demobilised," 22 Washington Road, Sheffield.

A POSITION of trust, holding scope for advancement, required by advertiser, with 11 years' experience all branches of good-class trade; expert Dispenser; highest references; capable, enthusiastic, keen, educated, and gentlemanly; demobilised after scientific work in Army; unqualified. Apply 9/12, Office of this Paper.

A QUALIFIED Chemist of wide experience desires berth; Locum or permanency; disengaged; state salary offered. "Chemicus" (271/7), Office of this Paper.

A QUALIFIED Chemist desires post as Manager, in or near Manchester; steady, reliable, with first-class Dispensing experience; disengaged. Evans, 53 Fairlawn Street, Manchester.

A BLE, business-like Chemist desires engagement; forcibly generates high intelligence; judiciously keeps level many negotiations over prices; quickly restores suspended trade (unless very wrecked); expand yours zealously. "Alphabet" (8/17), Office of this Paper.

A CTIVE; unqualified; 26; 10 years' experience; moderate terms. 54 Stacey Road, Cardiff.

A DVERTISER, 32, experienced, desires position as Manager or Managing Assistant of Drug Stores; active Counterman, good Prescriber, Extractor, smart Window-dresser; energetic; good references; unqualified; married, 5 ft. 10 in. Lucas, 65 Maydwell Street, Albany Road, S.E.

A N energetic Manager or Assistant; first-class experience and references; disengaged. Chemist, 6 Eastbourne Terrace, London, W. 2.

A N INVESTMENT of £312 or more per annum will yield the following return: A qualified Manager, 35 years old, with twenty years' experience, including Photography and Optics; he has a reputation as a "Business Builder"; here are two examples: In seven years made a turnover of £600 into £3,500; in three years increased a turnover from £1,500 to £6,000. If interested write J. L. B. (9/35), Office of this Paper.

A S Branch Manager, qualified, experienced, undeniable references, 22 years, with living accommodation; full interest given for best terms; disengaged March. State all particulars for "Opportunity" (4/27), Office of this Paper.

A S Relief, days, half-days, and Sundays, by an experienced Locum; smart, neat, and quick. G., 122 Scott-Ellis Gardens, St. John's Wood, N.W.

A SSISTANT, unqualified, age 30, good Counter and Dispensing experience, recently demobilised, requires situation till September; good references. Dover, Papcastle, Cockermouth.

A SSISTANT; Dispenser, Counterman; 30, tall, well recommended; demobilised. "Statim," Trensale House, Polesworth, Warwickshire.

A SSISTANT requires position; age 31, married; highest references; first-class knowledge of Photography; would invest £500 in business if required. Apply 4/16, Office of this Paper.

A SSISTANT seeks post; unqualified; capable and enterprising; 21; excellent references of two last situations. Avis, c/o 219 High Street, Hounslow.

A SSISTANT; unqualified; 23, 5 ft. 10 in.; five years' experience in Dispensing, Optics, and Photography, including London and Manchester; disengaged; London, West-End, preferred, but provinces not objected to. "Abstainer," Astoria Carnarvon.

A SSISTANT or Manager in good-class business with Photography, and opening for Optical, with a view to acquiring interest; near London preferred; advertiser with good experience in all branches; qualification, Pharmaceutical Chemist, F.S.M. Apply "A. Z.," c/o Wright, Layman & Umney.

A SSISTANT; unqualified; disengaged; young; good Dispensing experience; highly recommended. F. J. Palmer, 17 Para Felixstowe.

A SSISTANT; unqualified; experienced all-round; S.W. or C. "Radix," 72 Tremadoc Road, Clapham, S.W.

A SSISTANT, recently demobilised, age 22, requires situation in Liverpool or near. "H.," 8a Allerton Road, Moss Hill, Liverpool.

A SSISTANT; 22; unqualified; experienced high-class Dispensing smart Salesman; excellent references; just demobilised. For particulars first letter to Jeffs, 42 Morel Street, Barry.

A SSISTANT; unqualified; age 30; tall; energetic; experience in quick Counter trade and Dispensing, Photography; stainer; free January 19th. Write E. M., c/o Cassie & Co. 49 Newgate Street, E.C. 1.

A SSISTANT all-round experience; Photography, West-End and Store experience; age 38. Lambert, 42 Gascony Avenue, N.W. 6.

A SSISTANT; 21; good Dispensing, Counter, and Photography experience; excellent references; disengaged. Apply M. Tytherleigh, Aberdeen House, Grayshott, Hants.

A SSISTANT; 28. "Horton," 3 Medwin Street, Clapham.

A SSISTANT, Senior; unqualified; good Prescriber; disengaged. Assistant, 36 Church Street, Woolwich.

A SSISTANT, competent, trustworthy; 25; unqualified; years' experience in all branches; Birmingham or Maidstone preferred. Farley, c/o Mr. Dorrell, Wheeler Street, Maidstone, Kent.

A SSISTANT, age 32, unqualified, married, tall, requires berth for 7 months, commencing in February; good experience Dispensing, Photography, etc.; seaside preferred, but not essential; please state hours, salary (outdoors), or would undertake Locum work. R. F. (10/11), Office of this Paper.

A SSISTANT, unqualified; disengaged; age 39; married; good references. Apply 8/20, Office of this Paper.

A SSISTANT, 24, semi-qualified, desires part-time position in South Wales or Gloucestershire preferred. Apply Pharmacist (8/33), Office of this Paper.

B IRMINGHAM.—Lady, unqualified; whole or part time; moderate salary. 8/15, Office of this Paper.

B RISTOL.—Unqualified, good-class Dispensing and Counter experience, abstainer, energetic, desires post in Bristol district. "Rhei," 20 Hopetoun Road, Bristol, N.

C APABLE Assistant, 26, good-class Dispensing experience, desires change, where work is plentiful but hours are reasonable; Yorks or Lancs preferred. 9/16, Office of this Paper.

C HEMIST (lady), conscientious worker, experienced, capable, wishes to manage a branch shop; South of Scotland Glasgow district; excellent credentials; good Bookkeeper, Store Window-dresser; unqualified; quick N.H. Dispenser; £4 4s. Apply 4/31, Office of this Paper.

C HEMIST's Manager, qualified, well experienced in all branches of the Retail, highest testimonials, desires suitable position of trust; town or country; Northern Counties preferred, but not essential. Apply, full particulars in confidence, 5/8, Office of this Paper.

C HEMIST'S Assistant or Dispenser; unqualified; good Counterman; 21; four years' apprenticeship, including two years Dispensing; highest references from late employer; recent date commence immediately. Fyfe, Spring Bank, Lancaster.

C HEMIST'S Assistant; 30; unqualified; Counter and Dispensing; reliable; recently disengaged; West-End experience; Locum or permanency. Write to M. Birch, 8 Cromwell Grove, Hammersmith, W. 6.

CLERICAL work, any kind, evenings. Address "F. G." (186/36), Office of this Paper.

COMPETENT Assistant, 31, unqualified, married, as Senior or Branch Manager; experienced Dispenser, Prescriber, and Window-dresser; expert in Photography and Optics; excellent references; state salary and hours. "Toluol" (4/200), Office of this Paper.

COMPETENT Scotsman (23), qualified, wishes post as Manager or Managing Assistant; excellent Edinburgh experience in Dispensing, Counter work, and Window-dressing; Manchester strict, Liverpool, or Newcastle preferred. State salary, etc., 1/4, Office of this Paper.

DENTAL-CHEMIST offers services two or three days weekly; could train Chemist in Dentistry; own equipment. "London" P. C. B. 22/28), Office of this Paper.

DISENGAGED; competent Assistant; Locum or permanent; experienced Dispenser, Prescriber, Counter, Photographic; attractive Sales Window-dresser; interview if convenient. Energy, 239 Camberwell New Road, S.E.

DISPENSER, lady; unqualified; age 20, height 5 ft. 3 in.; three years' experience; disengaged early in February; state salary. Apply to J. Reynolds, Guyscliff, Linden Road, Bognor, Sussex.

DISPENSER, lady, qualified, experienced Shorthand-Typist, requires post in London with Doctor, Institution, or Chemist. Apply P. C. B. 24/4, Office of this Paper.

DISPENSER; recently demobilised; eight years' experience; prefer Doctor or Institution. "R.," 5 Clifton Terrace, Barnstable.

DISPENSER (lady), qualified, requires post; preferably in or near London. Miss Steabben, Watford.

DISPENSER, lady (Hall), 2½ years Head Dispenser Military Hospital and previous Chemist Shop experience, desires management Doctor, Hospital, or Institute; knowledge of Typewriting and Bookkeeping; London or Croydon district preferred; disengaged now. B. Fox, Wayside, Chipstead, Surrey.

DISPENSER, lady (Hall), disengaged, desires post, Doctor, Chemist, or Institution; London or district; experienced; good references. Apply Miss Jones, 24 Montem Road, New Malden, Surrey.

DISPENSER (male) requires part-time engagement (at once). P. C. B. 25/3, Office of this Paper.

DISPENSER-BOOKKEEPER (35); permanency required; would do Locum; Extractor, Dresser, N.H.I. work; 16 years' experience; good references; disengaged. Strutt, 2 London Road, Hailsham.

DISPENSER-BOOKKEEPER, lady (Hall), several years' experience, desires post; Doctor or Chemist; London. Apply 7/27, Office of this Paper.

DISPENSING.—Lady (Hall) desires post; good experience; Institution preferred. "A.," 10 Antrim Grove, Belsize Park, N.W.

FIRST-CLASS experience Counterman, Dispensing, Photo, Windows; thoroughly competent, steady man; disengaged; unqualified; any distance, providing it is permanent. F., 286 Kingsland Road, London, E. 8.

I RECOMMEND my late Assistant, now demobilised, to any Chemist who requires a thoroughly capable and trustworthy man, unqualified, but competent in all branches of Pharmacy. Apply Horton, Cathedral Pharmacy, Chichester.

IMPROVER, disengaged, aged 17, tall, strong, energetic, two years' experience, desires situation; indoors preferred. Apply Mills, Chemist, Dulwich, S.E.

JUNIOR (21) desires situation; good all-round experience, including Photography; smart Salesman; keen; excellent references. Douglas, c/o Grayson, Pharmaceutical Chemist, Whitehaven.

JUNIOR or Improver; age 20; excellent references; good Salesman and Dispenser; salary a secondary matter. Walker, Belle Vue, Cockermouth, Cumberland.

JUNIOR requires situation; good experience in Counter, private and N.H.I. Dispensing, and Photographic work. W. L. Whyatt, 117 North Road, Bishopston, Bristol.

JUNIOR; five years' experience; tall; Manchester or near. Apply 7/14, Office of this Paper.

LADY Dispenser, Hall qualification, desires post; experienced in Doctor's Dispensary; excellent testimonials. Miss A. Fry, Moorlynn, near Bridgwater, Somerset.

LADY Dispenser (Hall) seeks work as Junior; with Chemist preferred; has secretarial experience; would go anywhere. Wheeler, 15 Beaconsfield Villas, Brighton.

LADY Dispenser requires re-engagement. Apply 6/34, Office of this Paper.

LADY Dispenser-Bookkeeper (Hall), experienced; Doctor or Institution. Apply 4/17, Office of this Paper.

LADY Dispenser-Bookkeeper, qualified, desires post; experienced; 8 years' testimonial; highest references. 8/31, Office of this Paper.

LADY, Hall qualification, Dispensing experience, requires post as Junior Assistant in good-class business; London, S.E. or W. 13 Northampton Road, Croydon.

LATELY demobilised, 3½ years' R.A.M.C.; experience 30 years; Dispenser, Lichfield and Carrington Military Hospitals; single; unqualified. "Delta," 56 St. Mary's Terrace, Hastings.

LIVERPOOL.—Middle-aged, qualified man requires situation; good Dispenser. "J. J. S.," 9 West Derby Street, Liverpool.

LOCUM.—Chemist having sold his business will take Locum work; qualified, experienced, good references, disengaged. S. Barker, 22 Norfolk Road, Brighton.

LOCUM Manager, Major; 50, 6 ft.; unique varied experiences; disengaged; forward bookings for coming season; references and testimonials. Apply 5/10, Office of this Paper.

LOCUM or Manager; 43; disengaged; qualified; good experience Retail, Dispensing, and Hospital. Chemist, 11 Laurie Avenue, Burford Road, Nottingham.

LOCUM (temporary Manager); 53; qualified; country; disengaged until March 31st; first-class experience and references; Photography, Optics; energetic. Dewey, 4 Montague Gardens, Wallington, Surrey.

LOCUM disengaged January 14th; highest references; well recommended; wide experience "Beta," 74 West Hill, East Putney, London, S.W. 15.

LOCUM, experienced, disengaged January 12; £3. C. S., 19 Rockmount Road, S.E. 19.

LOCUM or temporary; qualified; fully capable and reliable; wide experience; now disengaged. Apply 9/22, Office of this Paper.

LOCUM disengaged; knowledge of all branches of the trade; tall, and of good appearance; unqualified, but exceptionally experienced. "A. M." (191/91), Office of this Paper.

LOCUM or permanency; unqualified; experienced Dispensing, Prescribing, etc.; disengaged. Apply 10/6, Office of this Paper.

LONDON District.—Manager or Locum; qualified; 45; single; high-class Dispensing, Photographic; single; recently disengaged. Chemist, 9 Grantbridge Street, Islington, N. 1.

M.P.S., F.S.M.C., desires position of Assistant or Manager in good-class business with a view to acquiring interest in it or eventually taking over; age 25; good experience and references; Optics essential. Apply 6/27, Office of this Paper.

MALE Student; 28; reliable; abstainer; February to October. Nicholls, Victoria Street, Baildon.

MANAGER, Senior, Major; 49; good experience Counter, Dispenser; outdoors; disengaged; references. Anthony, 58 Sumatra Road, West Hampstead, N.W. 6.

MANAGER; qualified; all-round experience; Western area preferred; outdoors. Johns, 26 Dordrecht Road, Acton.

MANAGER or Locum, Minor; accustomed to good-class Retail and Dispensing, Photography; London or country; permanency desired; good references; age 54. Smith, 48 Westbury Road, Forest Gate, E. 17.

MANAGER desires post with plenty of work and liberal remuneration; accustomed to good-class trade and Photography; smart Counterman, competent Dispenser; undeniable references. Further particulars from "Qualified," 3 Winterburn Hill, Warley, Halifax.

MANAGER, Branch Manager, or Locum; qualified; good experience; South or West England preferred, but not essential. North, e/o S. Barlow, St. Columb, Cornwall.

MANAGER or Senior; 37; qualified; 22 years' best-class experience, English and Continental; town or country. Scott, 57 Cartwright Gardens, W.O.

MANAGER, Assistant, or Locum; 40; qualified; reliable; abstainer; excellent references; no war break; salary from £6 per week, according to hours, etc.; W. or S.W. London or near suburbs. "Este" (10/10), Office of this Paper.

MANAGERSHIP, or as Locum, wanted by qualified Chemist; Photography, Optics, etc. "Chemist," 82 Chapel Field Road, Norwich.

N.H.I., rapid Dispenser; assist Counter; Locum, permanent; manency. "B.," 90a Pearcroft Road, Leytonstone, E. 11.

NOTTINGHAM DISTRICT.—Unqualified Assistant; 22; good Dispensing and Counter experience; disengaged. Llewelyn, Codnor Park, near Nottingham.

PART-TIME Manager (unqualified) or Assistant; Minor Student; could take complete charge of business; London. Apply 280/150, Office of this Paper.

PART-TIME, evenings; qualified; young; disengaged; experienced. Smith, 1 Cotleigh Road, West Hampstead.

PART-TIME; male Assistant; Hall and Pharmaceutical Student; nominal salary for experience; mornings, afternoons, all Saturdays and Sundays. Apply 6/22, Office of this Paper.

PHARMACIST, 27, demobilised, requires berth; Manager or Assistant; good experience. Apply "C.," 56 Queen's Crescent, London, N.W. 5.

PHARMACIST, 50, good experience, owing to wife's health requires situation as Manager in the South; very moderate salary. Apply 7/25, Office of this Paper.

PHARMACIST; elderly; any capacity; every experience; disengaged. "Dallas," 40 H. Bank Road, Fulwood, Preston.

PHARMACIST (qualified), London, West End (Counter, Dispensing, and Window-dressing experience), shortly disengaged. Apply 8/25, Office of this Paper.

QUALIFIED; Assistant or Manager; West-End experience; reliable; permanency. Apply 6/21, Office of this Paper.

QUALIFIED, 29, single, disengaged, desires permanency; good experience Photography. "F. S.," 46 Abbeygate Street, Bury St. Edmunds.

QUALIFIED Assistant or Manager; 25 years of age; excellent references and experience; energetic, reliable; life-long abstainer; Welsh known. Apply 268/15, Office of this Paper.

QUALIFIED, 35, single, 5 years absent, Retail or closely allied branch requiring Medical and Pharmaceutical knowledge, war upset plans, take position as Junior to get into touch; qualification might be useful to man working single-handed; previous good London and country experience; references excellent; salary small to commence. P. C. B. 24/34, Office of this Paper.

QUALIFIED desires engagement; experienced Manager; disengaged; abstainer; excellent reference; moderate salary; interview London only. Replies to 8/12, Office of this Paper.

QUALIFIED Manager or Locum, 25 years' experience, requires permanency; town or country; disengaged; married. State salary to "M. D.," 26 Fox Hill, S.E. 19.

QUALIFIED, 28, married, good Dispensing, Counter, and Photographic experience, desires permanency; Manager or Senior; London preferred, but not essential. State salary and hours, 9/38, Office of this Paper.

QUALIFIED, 50, demobilised, desires position Dispensing and Counter; used to high-class business; Midlands preferred (no Stores). Best, Whitaker Road, Derby.

QUALIFIED; 46; single; view to succession or otherwise. Barker, 23 Wellclose Mount, Leeds.

QUALIFIED, 37, seeks good berth in the provinces; first-class experience London and provincial; permanency wanted. Pattison, 5 Royal Crescent, Whitby.

QUALIFIED Assistant or Manager; experienced; abstainer; City, West End, or Southern suburbs; disengaged. S. S., 93 Greyhound Lane, Streatham Common, S.W. 16.

QUALIFIED (lady) requires situation; excellent references; 8½ years' Dispensing and Counter; Liverpool or London. State particulars, Roberts, 119 High Street, Blaenau, Festiolog.

QUALIFIED, Locum, Manager, or view to succession; 28 years' experience; knowledge Photo and Optics; please state class of business and salary. H. H., e/o Woolleys, Sons & Co., Victoria Bridge, Manchester.

REGISTERED Branch Manager or Locum; first-class references. "D.," Eastdean, Stamford Road, Bowdon, Cheshire.

REPRESENTATIVE; 32; tall; smart; experienced Doctors, Chemists, and Drug Stores. 8/6, Office of this Paper.

S. C. ROWLAND, M.P.S., Whitechurch, Salop, highly recommended qualified man as Assistant or Manager; age 50; Manchester and Cheshire districts preferred. Apply 276/38, Office of this Paper.

SCOTTISH Pharmacist, 31, exceptional references, 15 years' first-class Retail, Dispensing, and Photographic, desires Managership; Midlands preferred, though not essential. Apply 7/24, Office of this Paper.

TEMPORARY or permanent; 40; unqualified; disengaged; all-round experience. 56a Cassland Road, South Hackney.

TWO lady Dispensers seek posts immediately after Christmas; Doctor or Chemist; highest references; eight years' experience. Apply 263/11, Office of this Paper.

UNQUALIFIED; age 35; married; 14 years' good-class experience Retail Dispensing and Photographic, Window-dressing; permanency desired; London or suburbs. Apply 8/23, Office of this Paper.

UNQUALIFIED; 22; 4½ years' good Dispensing experience; Western Counties preferred. L. J. Powell, East Street, South Molton, Devon.

UNQUALIFIED, recently demobilised, age 36, disengaged, good references, desires situation Wholesale or Retail Counter; Manchester district. "Assistant," 12 Oldham Road, Failsforth, Manchester.

UNQUALIFIED; age 35; used to first-class business; good Salesman, Dispenser, and Window-dresser; good knowledge French language. Apply P. C. B. 24/17, Office of this Paper.

UNQUALIFIED Assistant; disengaged; four years' experience; young; relief work at 2s. hour; London district. "Labor," 192 High Street, Homerton, London, E. 9.

UNQUALIFIED; 36 years; married; reliable Dispenser and Counterman; permanency required. Stevens, 46 Maybury Gardens, Willesden Green, N.W.

UNQUALIFIED; 22; good Dispensing, Counter, and Photographic experience. Cyril Davies, "Bryn Lyfryd," Treherbert.

UNQUALIFIED desires position in good-class Pharmacy, preferably S.W.; 6 years' experience Dispensing, etc.; good Counterman; interview. "G.," 1 Squire's Mount, Hampstead, N.W.

WANTED, at home or abroad, a position as Dispenser by energetic young gentleman (20); four years' experience in high-class Pharmacy. Write 277/27, Office of this Paper.

WANTED, situation as Assistant; had good Counter and Dispensing experience; age 20, height 5 ft. 2 in.; state salary. M. H. Barnes, 66 Hillmorton Road, Rugby.

WANTED, engagement as Assistant; good experience Counter, etc.; London only. J. Swann, 52 Adelaide Road, Shepherd's Bush, W. 15.

WET Counter.—Experienced Assistant; 8 years' all-round experience. W. E. Carty, 33 Chancellor's Road, Hammer-smith, W. 6.

WINDOW-DRESSER; engagements open; reasonable terms; 30 years' experience. "Mersey," 12 Edgeley Road, Clapham.

YOUNG lady Dispenser; Hall qualification; Hospital experience. "Statin," 62 Broomwood Road, Clapham Common, S.W. 11.

YOUNG Lady requires berth with Chemist; Photographic work, etc.; West of England preferred. Stone, 46 Waverley Road, Exmouth

£500 CAPITAL; Manager, qualified, with view to early succession; 35, married, abstainer; splendid references; six years present Managership. Full particulars in confidence to 5/20. Office of this Paper.

WHOLESALE.

1s. for 12 words or less; 6d. for every 10 words or less beyond, prepaid.

A REPRESENTATIVE well known to Chemists in the Midlands seeks re-engagement. Write "Ex-S." (P. C. B. 24/210), Office of this Paper.

A YOUNG man, 22, seeks position with manufacturing firm (Perfumery and Toilet Preparations); three years' experience with high-class firm. Write "Z." (7/8), Office of this Paper.

A DVERTISER, with 25 years' practical experience in the manufacture of Galenicals, Emulsions, Pharmaceuticals, Proprietarys, Packed lines, knowledge of Wet and Dry Counters, Recovery Stills, etc., desires post as Under-Manager or Foreman; used to control of staff; North or North Midlands preferred. Apply 7/26, Office of this Paper.

A DVERTISER requires position as Manager or Assistant Manager in works; experienced Pills, Tablets, Fluids, Packed Goods, Toilet products; knowledge of machinery; control staff; good organiser; introduce new lines; 30, married. Apply 266/11, Office of this Paper.

A DVERTISER, several years' experience Retail trade, seeks position as Warehouseman, Wholesale or Retail; good Stock-keeper; industrious, willing. "W." (10/2), Office of this Paper.

A S Traveller for really first-class house; any ground within about 150 miles of London; experienced and successful in Perfumes, Toilets, and Sundries; sound credentials; salary, commission, and expenses. "Increase" (6/26), Office of this Paper.

A SSISTANT (female), used to Drug Stock-room work and packing dry goods, etc., also brisk business in leading London Stores, seeks situation. Apply P. C. B. 23/40, Office of this Paper.

A T liberty; unqualified, 33, would like a change from Retail to Wholesale. Nelson, 55 Beamsley Road, Manningham, Bradford.

C HIEF Clerk, experienced in the handling of Cash, Pricing, Costing, and General Office Management, desires position with progressive firm, either in a similar capacity or as Agent, Representative, etc.; any work of responsibility and trust considered. 270/28, Office of this Paper.

C OMMERCIAL Traveller, having first-rate connection amongst Chemists in Derbyshire, Notts, Lincs, Leics, Northants, Oxon, and Bucks, would like to hear of a good house requiring efficient representation on this territory. Write "C. T." (P. C. B. 24/21), Office of this Paper.

C OMMERCIAL Traveller, age 35, disengaged, sound connection Plymouth to Aberdeen, Perfumes, Essential Oils, Drugs, Chemicals, and Toilet Preparations, Recellers, Wholesalers, Manufacturers, and Exporters, highest credentials, immediate business, is open to represent first-class house of British manufacturers; salary, expenses, and small commission. "T. U." (9/1), Office of this Paper.

D RUGS and Chemicals; 20 years' experience home and Colonial stockkeeping, checking, etc.; good knowledge French language. Apply P. C. B. 24/170, Office of this Paper.

D RUGS, Chemicals, etc.—A thorough practical, experienced gentleman in Retail, Wholesale, and Manufacturing wants engagement; expert checker, stock and store keeper; last 2½ years war stores. Gibson, 10 Tavistock Place, W.

E XPERIENCED Senior desires position as Sales Manager or Traveller; 31; energetic and pushing Salesman; highest credentials; replies in confidence. "Go-ahead" (4/20), Office of this Paper.

F.I.C., Ph.C., accustomed to control of works and men, experienced in scientific chemical work, seeks responsible post on demobilisation. Apply 277/39, Office of this Paper.

GENTLEMAN, with first-class experience Retail and Wholesale, wishes to represent several good houses; preparations must be well advertised; small salary, commission, and part expenses; East Midlands. 146/42, Office of this Paper.

L ADY (21) requires post; good knowledge of Patents, Sundries, Drugs, Toilet, Photo, and Counter work; five years' experience in London area; live out; state salary. "G." 22 Plympton Avenue, Brondesbury, N.W. 6.

O UTDOR Advertising or Sales Manager; highly experienced; salary £500 and expenses. P. C. B. 24/37, Office of this Paper.

P ERFUMERY AND TOILET PREPARATIONS.—Experienced Representative with high-class connection amongst Chemists, Stores, Hairdressers, desires appointment on commission basis; North of England, Scotland, North Wales; only high-class line considered. Reply "M. F. L." (263/29), Office of this Paper.

P HARMACIST, 41, 12 years' experience calling on Doctors and Chemists, desires to represent first-class house. Apply "Parcx" (6/31), Office of this Paper.

P HARMACIST, "fed up" with Home Pharmacy, seeks position abroad, where efficiency will be recognised. "Statim," 71 High Road, South Tottenham, N. 15.

P HARMACIST, aged 40, 24 years' Retail experience, desires permanent position (London), in which industry, integrity, and interest, with some literary and organising ability, will be duly appreciated; at liberty from 21st inst. 10/100, Office of this Paper.

Q UALIFIED Chemist wishes to travel for a British firm; France, Spain, Italy, North African Coast up to Egypt; knowledge of localities and the languages; great business to be done; previously run by many German travellers. Apply "Statim" (9/29), Office of this Paper.

Q UALIFIED wishes to represent good firm; accept Agencies; excellent opportunities; capable and reliable; resident in Manchester. 9/39, Office of this Paper.

T ABLET Machinist desires position of trust; any type machine skilfully operated; experienced. Apply 6/29, Office of this Paper.

P ILL-MAKER disengaged; 10 years' experience with leading house; recently demobilised after five years; first-class references. "J. B." (P. C. B. 23/13), Office of this Paper.

R EPRESENTATIVE, having good connection among Chemists, Hairdressers, and Stores throughout Eastern and South-Eastern Counties, making three calls per annum, is desirous on son's behalf (just disembodied from Army) several good commissions; will accompany me and have personal introduction. Apply 4/22, Office of this Paper.

R EPRESENTATIVE, young, experienced Drugs, Sundries, etc., desires change; provincial connection; real worker. "Expert" (2/21), Office of this Paper.

T RAVELLER.—Qualified man wishful to Represent good house; has London connection. "Aspirin" (8/11), Office of this Paper.

W ETS in General, or Assist Laboratory, or would prove useful in firm manufacturing Proprietary Preps, Medicinal or Toilet; 15 years' experience; age 36. "Statim," 27 Wroxtton Road, S.E. 15.

Y OUTH (17-18), accurate, requires position as Junior Assistant in Chemical Laboratory; 12 months' experience; good references and education. Write L. Crawley, 803 Old Kent Road, S.E.

Y OUNG gentleman, with excellent experience in all branches of Retail, seeks a berth in a good Wholesale house; please state salary, etc. 8/16, Office of this Paper.

SITUATIONS WANTED.

(Colonial, Indian and Foreign.)

I TALY, FRANCE, or SWITZERLAND.—Lady Dispenser, experienced, fluent French, desires post with Doctor, Hospital, or Chemist. Apply "H. M. T.," 86 The Headlands, Kettering.

S OUTH of France.—English Assistant (lady) seeks post (immediately); thoroughly reliable; hard worker; speaks French; Hall certificate and first-class experience; short hours. 9/34, Office of this Paper.

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